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ABSTRACT

This report proposes a pioneering diagnostic taxonomy of adult career problems, describes its development, and documents the results of a pilot test using a preliminary design to validate the taxonomy. The report is based on a study which had four major activities: a literature review of adult career development and pertinent taxonomies, a descriptive analysis of adult career problems, a formulation of alternative taxonomic models, and a pilot validation study. Following an executive summary and an introduction, the report consists of five major sections. Chapter 2, Adult Career Development Stages, presents an extensive review of the stages which occur over the life span: preparation, establishment, maintenance, and retirement. Within each stage a comprehensive list of career development tasks is specified. Chapter 3, A Diagnostic Taxonomy of Adult Career Problems, addresses the conceptualization and development of the taxonomy. Major tasks explored are decision making, implementing plans, organizational/institutional performance, and organizational/institutional adaptation. Chapter 4,The Diagnostic Assessment of Career Development Problems, provides a framework emphasizing problem identification, problem analysis, and problem evaluation. Case studies are included. Chapter 5 reports on a pilot study based on a direct measurement design of problem behaviors of the establishment stage, and Chapter 6 discusses implications for further research and makes twelve recommendations. A reference list concludes the document. (KC)

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A Diagnostic Taxonomy of Adult Career Problems

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FOREWORD

Several studies have suggested that many adults are undergoing career transitions. During these transitional periods, adults are concerned with work-education problems that include mid-career change, career decision making, on-the-job adjustment, underemployment, organizational morale, work productivity, obsolescence, and retirement. As educators and researchers, we must be responsive to these problems by devising improved techniques that lead to the differential diagnosis and the differential treatment of client problems. The potential of an adult problem diagnostic scheme has yet to be realized. Such a system would provide a description of problems at various times during adulthood as well as diagnostic guidelines and techniques that would enhance the counselor's abilities to analyze a particular client's problem. This report advances the knowledge in the diagnostic arena by pioneering a diagnostic schema of adult career development problems.

The National Center for Research in Vocational Education is pleased to have cooperated with the Home, Community, and Work Section of the National Institute of Education in the development of this report. We are especially indebted to Dr. A. Cameron Buchanan, project officer, for his cooperative leadership. We congratulate Dr. Robert E. Campbell, project director, and his staff, James V. Cellini, Paul E. Shaltry, Aubrey E. Long, and Darlene Pinkos, for their scholarly efforts on this project.

The National Center also acknowledges the distinguished advisory panel members who contributed to this report. They are: Dr. Nancy E. Betz, Assistant Professor of Psychology, The Ohio State University; Dr. John O. Crites, Professor of Psychology, University of Maryland; Dr. John D. Krumboltz, Professor of Educational Psychology, Stanford University; Dr. Zandy Leibowitz, Research Associate, University of Maryland; Dr. Samuel H. Osipow, Chairperson, Department of Psychology, The Ohio State University; and Dr. Randall S. Schuler, Assistant Professor of Management Sciences, The Ohio State University. Additionally, we are grateful for the reviews of this document provided by Dr. Stephen G. Weinrach, Associate Professor of Education, Villanova University; Dr. Paula I. Robbins, Associate Director of Graduate Studies, Fitchburg State College; and Dr. Ida Halasz-Salster, Research Specialist, the National Center.

Robert E. Taylor
Executive Director
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PREFACE

This report was prepared to assist researchers, counselor educators, and program administrators in dealing with adult career development problems. Practitioners should find helpful background information here. The intent of this report is to propose a diagnostic taxonomy, describe its development, and document the results of a pilot test using a preliminary design to validate the taxonomy in one problem domain. While this is the first attempt to develop a taxonomy of this kind, we hope it will eventually prove useful to practitioners in upgrading their counseling skills, serving as a source for the preservice training of career counselors, and providing foundational information for the design of adult counseling programs. For the moment, our intent is to stimulate researchers to sharpen the process of differential diagnosis and differential treatment of career development problems.

EXECUTIVE SUMMARY

A Diagnostic Taxonomy of Adult Career Problems

Recent reviews indicate that American adults are concerned with a wide range of career problems over the life span. According to Arbeiter, Schmerbeck, Aslanian, and Brickell (1976), fully 36 percent of all adult Americans are in some stage of a career transition process. Recent reviews (Best, 1975; Nord, 1977; Schlossberg, 1976) indicate that American adults are encountering a spectrum of work-education related problems over the life span. The problems include mid-career change, career preparation, work entry, on-the-job adjustment, underemployment, organizational morale, work productivity, and retirement.

In response to adult career counseling needs, including those of school leavers over age sixteen, there has been a sudden expansion of public and private counseling agencies. A 1974 national survey identified 752 programs (Harrison and Entine, 1976). This figure does not include numerous employer-sponsored programs, nor does it include the newly emerging programs stimulated by the recent federal Education Information Center Program (Federal Register, January 12, 1978). The growth of adult programs has placed a heavy burden on guidance and counseling professionals to develop quality services in a short period of time.

A major risk to clients inherent in the proliferation of adult career guidance centers is stereotypic treatment by counselors based upon inadequate knowledge of adult problems.

Many leading authorities in the field of career counseling are advocating the need for improved techniques which would lead to the differential diagnosis and the differential treatment of client problems (Bordin and Kopplin, 1973; Crites, 1976; Holland, Gottfredson, and Nafziger, 1975; Krumboltz and Thoresen, 1976; Osipow and Walsh, 1970).

An examination of the diagnostic literature suggests two related questions in need of further study: (1) what are the dimensions and parameters of career planning and adjustment problems over the adult life span, and (2) what diagnostic techniques should be used to assess the problems?

At present there exists a fairly substantial, but scattered, body of knowledge focusing on these issues. There is a need to synthesize and build upon the diverse literature in order to advance diagnostic schemes and techniques.

A reasonable starting point is the identification and classification of the range of career development problems over the adult life span. This would provide a descriptive spectrum of problems over time with which individuals must cope. In addition to a classification system of problems, better diagnostic guidelines and techniques are needed to strengthen the practitioner's ability to analyze carefully a particular client problem.

Advancing our knowledge in the diagnostic arena has a number of beneficial outcomes for improving counseling services. For example, it can provide inservice training to current practitioners to strengthen their counseling skills. It also can serve as a core course for the preservice training of career counselors. Additionally, diagnostic schemes can provide a basis for the design of adult counseling programs in such areas as staffing needs, treatment plans, and counseling procedures. A further benefit is to stimulate researchers to sharpen the process of differential diagnosis and differential treatment.

This pioneer study focuses only on the differential diagnosis of adult career development problems and leaves treatment interventions to future study. The objectives of the study were –

1. to conceptualize a diagnostic taxonomy of career planning and adjustment problems throughout the adult life span; and
2. to pilot test a preliminary design to validate the taxonomy in one problem domain.

The study was accomplished through four major activities: a literature review of adult career development and pertinent taxonomies, a descriptive analysis of adult career problems, a formulation of alternative taxonomic models, and a pilot validation study. The project staff were assisted by a national panel of consultants who provided conceptual direction.

The report of the study consists of five major sections. Chapter II, *Adult Career Development Stages,* presents an extensive review of adult career development stages. The review delineated four major stages over the adult life span: preparation stage, establishment stage, maintenance stage, and retirement stage. Within each stage a comprehensive list of career development tasks was specified. A career development task represents a major activity or issue with which an individual must cope to successfully negotiate that stage. For example, plan for the implementation of an occupational choice is a key task of the preparation stage. Career development problems arise when one fails to attempt or successfully cope with a task.

Chapter III, *A Diagnostic Taxonomy of Adult Career Problems,* addresses the conceptualization and development of the taxonomy. The taxonomy is based on an analysis of the career development tasks specified in the four stages of career development over the adult life span reviewed in Chapter II. The four task themes that were derived from this analysis are decision making, implementing plans, organizational/institutional performance, and organizational/institutional adaptation. The taxonomy has been constructed to reflect the problems associated with achieving each of the four major tasks. Consequently, the taxonomy consists of four major problem categories: (1) problems in career decision making, (2) problems in implementing career plans, (3) problems in organizational/ institutional performance, and (4) problems in organizational/institutional adaptation.

Each major problem category is further divided into problem subcategories, i.e., more specific types of problems which can be differentiated on the basis of a specific career developmental task having a *common* manifestation or stemming from *common* etiological factors. Further, within each problem subcategory, problem areas are further delineated with reference to distinguishing causal factors. Examples of client problems representative of each particular causal factor are presented to facilitate understanding of the types of problems that could be appropriately classified under a given problem subcategory.

Several points concerning the taxonomy should be made. First, while the four major problem categories utilized appeared to minimize overlap across categories, complete independence of problem categories was neither possible nor desirable to achieve. Thus, it may be found that problems classified within one problem category may be related to or have implications for problems classified under other categories. Problems in one life or career domain rarely occur in isolation from or without affecting other aspects of life or career, but the designation of a primary problem category will facilitate diagnosis, treatment, and assessment of the impact of the primary problem area upon other aspects of adjustment.

It should be noted also that clients may have more than one type of problem at any given time and that each problem may stem from different causal factors. For example, a person's job performance may be inadequate due to skill deficits, and at the same time he or she may manifest job adjustment problems due to hostile coworkers.

A further point concerning the taxonomy is that the ordering of problem categories, subcategories, and causal factors within subcategories is somewhat arbitrary and does not imply that one developmental level or sequence is more important than another.

Each of the four major problem categories describes problems that may occur at any age or stage in the career development process. For example, the retirement stage is viewed as one stage of the career development process; thus, problems in career decision making or in implementing career plans may occur for individuals nearing that stage as well as for individuals at the beginning or midpoint of their careers. In other words, categories of problems in career planning and adjustment are viewed as cutting across career development stages and reflect major categories of career development tasks central to all four developmental stages.

In using the taxonomy it should be noted that it is intended to provide a system for the meaningful *classification* of client problems rather than a *list* of all potential problems. Thus, no attempt was made to refer to every problem that might occur but, rather, to provide a means by which the range of client problems may be classified.

Finally, the phrase "organizational/institutional" is utilized throughout the taxonomy to refer to the environment in which the individual is experiencing career adjustment problems. The term "organizational" refers to the setting in which the individual is employed, while the term "institutional" refers to an educational or training setting. Thus, career adjustment problems are viewed as occurring both in the actual work environment and in the environments in which the individual prepares for a career.

The following is a condensed outline of the taxonomy displaying major problem categories and subcategories. The expanded version includes further problem differentiation, causal factors, and problem examples.

DIAGNOSTIC TAXONOMY OUTLINE
Problem Categories and Subcategories

1.0 Problems in Career Decision Making

- 1.1 Problems in Career Decision Making: Getting Started
- 1.2 Problems in Career Decision Making: Information Gathering
- 1.3 Problems in Career Decision Making: Generating, Evaluating, and Selecting Alternatives
- 1.4 Problems in Career Decision Making: Formulating Plans for Implementing Decisions

2.0 Problems in Implementing Career Plans

- 2.1 Problems in Implementing Career Plans: Characteristics of the Individual
- 2.2 Problems in Implementing Career Plans: Characteristics External to the Individual

3.0 Problems in Organizational/Institutional Performance

- 3.1 Problems in Performance: Deficiencies in Skills, Abilities, and Knowledge
- 3.2 Problems in Performance: Personal Factors
- 3.3 Problems in Performance: Conditions of the Organizational/Institutional Environment

4.0 Problems in Organizational/Institutional Adaptation

- 4.1 Problems in Organizational/Institutional Adaptation: Initial Entry
- 4.2 Problems in Organizational/Institutional Adaptation: Changes Over Time
- 4.3 Problems in Organizational/Institutional Adaptation: Interpersonal Relationships

Although a diagnostic taxonomy of career development problems is helpful in identifying the range of possible concerns and issues that interfere with satisfactory career adjustment, it does not provide procedures for a diagnostic analysis of a given problem. In other words, it is not enough to simply identify a problem such as organizational adaptation. Effective diagnosis requires the additional step of a more in-depth analysis of the problem which leads to the treatment plan.

The purpose of Chapter IV, *The Diagnostic Assessment of Career Development Problems,* is to provide a framework for the diagnostic analysis of problems. The framework consists of four elements representing a systematic progression from diagnosis (the first three elements) to developing a treatment plan (the fourth element). The emphasis for this chapter is on the first three elements, diagnosis. They are (1) problem identification, (2) problem analysis, and (3) problem evaluation. Guidelines are given for the application of each of these elements, and two case studies are included to illustrate the diagnostic framework.

In addition to the development of the taxonomy, a second objective of the study was to conduct a small pilot study to validate a portion of the taxonomy. The intent of the pilot study was two-fold: a partial validation and the development of a preliminary validation design which could be used later for a more complete validation. The pilot study, reported in Chapter V, was based on a direct measurement design of representative problem behaviors of the establishment stage. An instrument consisting of six scales was constructed to measure these behaviors. The instrument was administered to a random sample of 110 employees in three different work settings. The respondents, approximately half male and half female, also provided routine demographic information, e.g., sex, age, job title, etc. and completed the Hoppock Job Satisfaction Blank (JSB).

Overall, the pilot test demonstrated positive findings not only for the partial validation of the taxonomy, but showed promise for further validation of the taxonomy with other career development stages. The psychometric properties of the total instrument and its subscales were adequate, and the respondents reported that it had good face validity. The total scale correlated .50 with job satisfaction (JSB) suggesting that those workers who were coping satisfactorily with the expected tasks of their stage were more job satisfied and more career problem free. The results also suggested a three-phase task/time sequence in coping with tasks and/or problems of the establishment stage. Early in the stage, the worker focuses upon the tasks of organizational adaptation and performance; in the intermediate phase, the focus is on work habits and attitudes and coworker relationships; and at a later phase, the worker is future-oriented toward the tasks of career planning and advancement. Tentatively, the findings suggest that future expansion and refinement of the instrument could not only further validate the total taxonomy, but also could serve as a useful diagnostic tool. Conceivably, the instrument could provide a diagnostic profile of worker problem behaviors. For example, low scores on career planning and advancement during the maintenance stage might suggest possible mid-career crisis.

Finally, Chapter VI addresses the broad issues precipitated by this project that have implications for future research, theory building, and diagnostic practice. Twelve recommendations are discussed.

Chapter I

INTRODUCTION

Adults have career problems. According to Arbeiter, Schmerbeck, Aslanian, and Brickell (1976), fully 36 percent of all adult Americans are in some stage of a career transition process. Recent reviews (Best, 1978; Nord, 1977; Schlossberg, 1976) indicate that American adults are encountering a spectrum of work-education related problems over the life span. The problems include mid career change, career preparation, work entry, on-the-job adjustment, underemployment, organizational morale, work productivity, and retirement.

In response to adult career counseling needs, including those of school leavers over age sixteen, there has been a sudden expansion of public and private counseling agencies. A 1974 national survey identified 752 programs (Harrison and Entine, 1976). This figure does not include numerous employer-sponsored programs nor does it include the newly emerging programs stimulated by the recent federal Educational Information Center Program (Federal Register, January 12, 1978). The growth of adult programs has placed a heavy burden on guidance and counseling professionals to develop quality services in a short period of time.

A major risk to clients inherent in the proliferation of adult career guidance centers is stereotypic treatment by counselors based upon inadequate knowledge of adult problems. It has been well demonstrated that clients who superficially share a common problem may differ considerably in the etiology of the problem. For example, as Crites (1969) points out, persons experiencing vocational indecision can vary as to the cause of their indecision. He distinguishes between *simple indecision,* due to lack of occupational information and decision-making skill, and *pervasive indecision,* a personality disturbance manifested by considerable anxiety. It would be a mistake to treat both types alike, for example, by bombarding the clients with occupational information. Similarly, it would be erroneous to assume that all persons experiencing mid-life crises are in need of career change counseling. Additionally, many adults have difficulty diagnosing their own problems and undertaking appropriate action.

Many leading authorities in the field of career counseling are advocating the need for improved techniques which would lead to the differential diagnosis and the differential treatment of client problems (Bordin and Kopplin, 1973; Crites, 1976; Holland, Gottfredson, and Nafziger, 1975; Krumboltz and Thoresen, 1976; Osipow and Walsh, 1970).

An examination of the diagnostic literature suggests two related questions in need of further study: (1) what are the dimensions and parameters of career planning and adjustment problems over the adult life span, and (2) what diagnostic techniques should be used to assess the problems?

At present there exists a fairly substantial, but scattered, body of knowledge focusing on these issues. There is a need to synthesize and build upon the diverse literature in order to advance diagnostic schemes and techniques.

A reasonable starting point, which is the purpose of this report, is the identification and classification of the range of career development problems over the adult life span. This would provide a descriptive spectrum of problems over time with which individuals must cope. In addition to a classification system of problems, better diagnostic guidelines and techniques are needed to strengthen the practitioner's ability to analyze carefully a particular client problem.

Advancing our knowledge in the diagnostic arena has a number of beneficial outcomes for improving counseling services. For example, it can provide inservice training to current practitioners to strengthen their counseling skills. It also can serve as a core course for the preservice training of career counselors. Additionally, diagnostic schemes can provide a basis for the design of adult counseling programs in such areas as staffing needs, treatment plans, and counseling procedures. A further benefit is to stimulate researchers to sharpen the process of differential diagnosis and differential treatment.

This study focuses only on the differential diagnosis of adult career development problems and leaves treatment interventions to future study. The objectives of this study are —

1. to conceptualize a diagnostic taxonomy of career planning and adjustment problems throughout the adult life span; and
2. to pilot test a preliminary design to validate the taxonomy in one problem domain.

This report is designed to assist researchers, counselor educators, and program administrators to be more effective in dealing with client problems. It must be remembered, however, that this study is a pioneering effort and will require further field application to determine the viability of this taxonomic approach. Further work on integrating treatment with diagnosis must be done in future studies.

Methodology

The methodology for this project consisted of four major activities: a literature review of adult career development and pertinent taxonomies, a descriptive analysis of adult career problems, a formulation of alternative taxonomic models, and a pilot validation study. These activities built upon the findings of a prior project (Campbell and Shaltry, 1979) that reviewed adult developmental models and explored relevant programs and issues dealing with adult career development.

The literature review focused on career development problems encountered during the adult life span and taxonomic approaches. The Educational Information Resource Centers, the Ohio State University's Mechanized Information Center, and the Lockheed Computer Dialogue System served as sources for searches. Additionally, books, papers, and journals not included in the above sources were used. While the main thrust of the search was to identify the types and ranges of adult career development problems, an adjunct review of pertinent taxonomies identified appropriate attributes, such as form, function and criteria, and difficulties in the conceptualization of taxonomies.

Several alternative taxonomic approaches were derived from the literature. Since there is little or no precedent for a taxonomy of career development problems across the life span, the strategy of developing several alternatives minimized the chances of overlooking potentially useful models. This process took place over several months in cooperation with the project's consultants who represent a considerable range of expertise. The group included researchers, practitioners, theorists, vocational psychologists, organizational behavior specialists, and counselor educators.

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The last activity was a pilot validation study of a portion of the taxonomy. A limited pilot test was necessary because time constraints prevented a full test of the taxonomy. The design of the study was based on the conceptualization of a diagnostic taxonomy that defined problems as stemming from coping with career development tasks by career development stages. The study focused on the establishment stage, which was limited to initial work entry and adjustment problems. Approximately 100 employees from three industrial settings were studied by an independent research subcontractor.

The interaction among the methodological activities is summarized as follows. The conceptual framework for the taxonomy, including criteria, was derived from the literature and expert opinion. Project staff drafted the taxonomy and this report in stages. Project consultants reviewed drafts and suggested revisions during development. (The project staff, however, takes full responsibility for this report.) The taxonomy was developed with an eye toward utility in counseling clients. The subcontracted validation study was merely a first step in determining the viability of this pioneer effort.

This report consists of five major sections. Chapter II, *Adult Career Development Stages,* presents an extensive review of adult career development stages which identifies developmental tasks across the adult life span. These tasks are sources of potential problems that form the substance of the taxonomy. Chapter III, *A Diagnostic Taxonomy of Adult Career Problems,* addresses the conceptualization and development of the taxonomy which is based on the developmental tasks identified in Chapter II. Chapter IV, *The Diagnostic Assessment of Career Development Problems,* relates the taxonomy to counseling procedures and two case studies. Chapter V, *A Pilot Validation Study,* reports on a first attempt to validate a developmental task-oriented questionnaire that reflects problems encountered during the first phase of the establishment stage. Finally, Chapter VI addresses the broad issues precipitated by this project that have implications for future research, theory building, and diagnostic practices.

Chapter II

ADULT CAREER DEVELOPMENT STAGES

This chapter presents a review and synthesis of general adult development and career development literature that was pertinent to the conceptualization of the diagnostic taxonomy. The purpose of the review is to present the progression of adult career development activities and also to aid in identifying potential career problems throughout the adult life span.

This chapter is divided into three sections. The first section reviews major theories of general adult development and career development. The second section presents a more in-depth review and synthesis of the literature organized into four career development stages. The final section analyzes these stages as a basis for the diagnostic taxonomy.

Major Theories

This section reviews theories of general adult development and career development. Because the purpose of the diagnostic taxonomy is to classify career problems during the entire work life, the central (but not sole) focus of this review is literature which traces development across the entire life span. Thus, most theories of career choice (e.g., Holland's theory) will not appear in this review.

Six major theories have been identified which meet this criterion. The basic concepts and structure of the theories are summarized below and in Table 1 on pages 10-15. The first three theories are concerned with general adult development while the latter three theories focus on the career development process.

Erikson

Erikson (1950) has divided the course of human development into eight sequential stages. Each stage is seen as a major crisis or turning point during which individuals are confronted with psychosocial issues to be resolved. The success or failure of an individual in dealing with these issues helps to determine the form of his or her personality and the behavior pattern displayed in dealing with the issues of subsequent stages.

The first five of Erikson's stages bear close relationship to Freud's psychosexual stages of development. However, Erikson shows more interest in the significance of social issues as opposed to Freud's focus on biological and sexual growth. The first four stages occur prior to the active work life and are not directly relevant to this review. The latter four stages cover the life span from adolescence to late adulthood. Each of these stages is characterized by a major issue to be resolved (e.g., "maturation of interpersonal relationships" in early adulthood). Erikson also enumerates the possible outcomes of dealing successfully or unsuccessfully with the issue (e.g., intimacy and fusion of identity with another vs. avoidance of intimacy and isolation). These characteristics are summarized in Table 1 on pages 10-15.

Havighurst

Havighurst (1952) has stated that human development is based upon learning. Individuals in modern society are confronted with and, through learning, attempt to master a number of tasks. These developmental tasks

> . . . are those things that constitute healthy and satisfactory growth in our society. . . A developmental task is a task which arises at or about a certain period in the life of the individual, successful achievement of which leads to his happiness and to success with later tasks, while failure leads to unhappiness in the individual, disapproval by society, and difficulty with later tasks. (Havighurst, 1952, p. 2)

Havighurst (1952) has divided the life span into six age periods. Each age period is associated with six to ten developmental tasks. If a task is not mastered at the proper time (i.e., during its assigned age period), the task may never be fully accomplished. The role of the school is said to be that of assisting individuals in mastering these tasks at critical times ("teachable moments").

Havighurst delineates three different types of tasks. Some tasks, such as learning to walk, are biological in nature. Others, such as learning to read, are culturally imposed. Still others are self-imposed, the result of the individual's values and aspirations. In many cases, tasks arise from a combination of these three factors.

Some tasks are recurrent. That is, although each task must first be confronted at a critical time, individuals may be confronted again later with new aspects of the same task. For example, a child must learn to deal with his/her age-mates. As the child grows, he/she must learn to deal with a new set of age-mates. Success in mastering a task when it is first confronted leads to success in mastering new aspects of the task at a later time.

Havighurst's latter four age periods and their associated tasks are summarized in Table 1 on pages 10-15.

Levinson

The theory of Levinson, Darrow, Klein, Levinson, and McKee (1978) views human development as the construction of a life structure. The life structure is composed of an individual's sociocultural world (including family, occupation, and socioeconomic status), interpersonal relationships and roles in the world, and the individual's self-concept. The theory is based upon the intensive study of the characteristics and experiences of 40 men ages 35 to 45 years.

Levinson, et al. (1978) see life structuring as a sequence of alternating stable periods (six to eight years each) and transition periods (four to five years). The developmental tasks of a stable period are to make choices, to build a life structure around them, and to attain specified goals and maintain particular values. The developmental tasks of a transitional period are to end one's current life structure and to work toward the initiation of a new structure. Thus, in the developmental process, transitional periods can be seen as "growing pains" and the stable periods as a time when the basic life structure remains relatively intact.

The chronological periods of transition and stability and their characteristics and tasks are summarized in Table 1 on pages 10-15.

Miller and Form

Miller and Form (1951, 1964), in their study of the industrial organization, divide the lifework pattern into five periods of work adjustment: preparatory, initial, trial, stable, and retirement. The middle three periods are considered the "active work life," spanning the time from entry into the first full-time job to total disengagement from the work force. Each period is characterized by the unique nature of the job(s) held, the amount of occupational and organizational mobility present, the work histories of those in the period, and the psychological components of the period.

Although a stable progression through the five periods is the modal career pattern, Miller and Form (1951) recognize that other patterns exist. In all, they have identified fourteen varieties of career patterns, the most typical being the stable, conventional, unstable, and multiple-trial types. They also recognize that socioeconomic status, race, sex, place of residence, peer influence, and other variables contribute to the development of an individual's particular career pattern.

The characteristics of each work period are summarized in Table 1 on pages 10-15.

Super

In his construction of a theory of vocational development, Super (1953) assigned central importance to the role of the self-concept, stating that vocational development is the process by which an individual's self-concept is developed and implemented. A self-concept is developed by the processes of differentiation (e.g., discovering and developing individual interests, attitudes, and values) and identification (e.g., role-playing). A self-concept is implemented through the choice and pursuit of an occupation allowing outlets for an individual's abilities, interests, and values.

Super (1953) also notes that the process of vocational development occurs throughout the life span. He divides the life span into five stages—growth, exploration, establishment, maintenance, and decline (Super, 1963; Super, Crites, Hummel, Moser, Overstreet, and Warnath, 1957). Each stage is generally associated with an age range. Some stages also have identifiable substages. The latter four stages, substages, age ranges, and a summary of vocational activities during the stages are shown in Table 1 on pages 10-15.

Super (1963) has also enumerated five vocational developmental tasks (crystallization, specification, implementation, stabilization, and consolidation) which are necessary for negotiating the life stages named above. These tasks are defined by their component attitudes and behaviors as enumerated in Table 1.

Schein

According to Schein (1978), individuals are simultaneously passing through stages in three different areas: biosocial, familial, and career. During each stage, individuals are confronted with choice points or obstacles to further development. In order to make choices and overcome obstacles, individuals are faced with a number of stage tasks. Schein's (1978) delineation of career stages and associated tasks is shown in Table 1 on pages 10-15. Each stage is also associated with a given age range.

Schein (1978) has also expanded upon the career development process as it occurs in organizations. His model depicts the organization as a three-dimensional cone. Movement within an organization (career development) can occur along three different dimensions:

1. Hierarchial (vertical) –
   movement to increase or decrease one's rank or level in the organization
2. Functional or technical (horizontal) –
   movement to change one's function or one's area of special expertise in the organization
3. Inclusion or membership (central) –
   movement toward the inner circle or the core of the organization

The remainder of the model describes career development as the interaction of individual and organizational characteristics.

Summary of Major Theories

The general adult development and career development models reviewed in this section have a number of features in common. Most theorists specify that individual development proceeds through a series of stages, each of which necessitates the completion of developmental tasks and/or the resolution of developmental issues unique to that stage. Movement to subsequent stages is viewed as contingent upon the satisfactory completion or resolution of previous stages. An individual's development is thus a compilation of successive stages.

Although the models vary as to the number of stages across the life span, each model links its stages to age ranges of varying degrees of specificity. Miller and Form (1951, 1964) and Super (1963) are most specific in the age ranges associated with each stage. Levinson, et al. (1978) and Schein (1978) are equally specific, but allow overlap in the age ranges of adjacent stages. Erikson (1950) and Havighurst (1952) specify more generalized age periods for each of their hypothesized stages.

Developmental stage tasks vary in number among models. However, most models include tasks which reflect development in social, psychological, and career areas. Erikson (1950), Havighurst (1952), and Levinson, et al. (1978) emphasize the social and psychological aspects while Miller and Form (1951, 1964), Super (1963), and Schein (1978) emphasize the career aspects. Most models are based on white males and do not specify different developmental tasks for different subpopulations. The tasks are the same regardless of sex, race, socioeconomic status, and occupational level.

Finally, developmental theories of this sort, with the possible exception of Miller and Form (1964), assume that stages in development are sequential and each is encountered only once. That is, individuals do not return to "lower" level stages once they have been satisfactorily negotiated.

Table 1

Adult Development Stage Theories

Table 1
Adult Development Stage Theories

	ADOLESCENCE (≈20 and under)	EARLY ADULTHOOD (≈20-40)	MIDDLE ADULTHOOD (≈40-60)	LATE ADULTHOOD (≈60 and over)
Erikson	**"Identity vs. Role Confusion"** Determination of one's role in life Establishment of an identity vs. Lack of certainty regarding one's place in society Confusion Turmoil	**"Intimacy vs. Isolation"** Development of intimate relationships with others Fusion of identity with another vs. Avoidance of intimacy Inability to give fully of oneself Isolation and alienation	**"Generativity vs. Stagnation"** Providing guidance for younger generation Ability to give of oneself Teaching and leading others vs. Self-indulgence Preoccupation with own concerns and needs Impoverishment and stagnation	**"Ego Integrity vs. Despair"** Satisfaction with past life and accomplishments Fulfillment and contentment Ego integrity vs. Sense of meaningless and alienation Loneliness Fear of death Despair
Havighurst	TASKS 1. Achieving mature relations with age mates 2. Accepting one's physique 3. Achieving a social role 4. Achieving emotional independence 5. Selecting and preparing for an occupation 6. Preparing for marriage 7. Achieving socially responsive behavior	TASKS 1. Selecting a mate 2. Learning to live with a marriage partner 3. Managing a home 4. Rearing children 5. Beginning an occupation 6. Taking on civic responsibility 7. Finding a social group	TASKS 1. Achieving civic and social responsibility 2. Maintaining an economic standard of living 3. Giving guidance to adolescent children 4. Developing leisure activities 5. Adjusting to physiological changes 6. Relating to one's spouse 7. Adjusting to aging parents	TASKS 1. Adjusting to decreasing physical strength and health 2. Adjusting to retirement and reduced income 3. Adjusting to death of one's spouse 4. Meeting social and civic obligations 5. Establishing an affiliation with one's age group
Levinson	**"Early Adult Transition"** (18-20) Separation from family Desire for independence Development of adult identity Exploration	**"Entering the Adult World"** (20-27) Exploration Experimentation Tentative commitments Foundation for life structure Vision or dream **"Age 30 Transition"** (28-32) Critical turning point Modification of existing life structure Foundation for new structure May be somewhat stressful **"Settling Down"** (33-40) Stability Commitments to family and work Security and vitality Career advancement Termination of mentor relationship Productivity	**"Mid-Life Transition"** (28-32) Critical turning point Disillusioning process Reexamination of goals and dreams Reevaluation of relationships Confrontation with physical decline **"Restabilization"** (46-55) Security and stability Achievement and productivity Satisfaction with life vs. despair Concerns about past mistakes	**"Culmination"** (55-60) Stability **"Late Adult Transition"** (60-65) Foundation for later adult years

Table 1 continued

	Preparatory Period (0-16)	Initial Stage (16-18)	Trial Period (18-34)	Stable Period (35-retirement)	Retirement
Miller and Form	This period represents early experiences and adjustments in the home, school, and community as the young person develops physical and mental maturity.	Aside from becoming more willing and able to work, individuals begin to acquire the social and technical skills necessary for job performance. The vocational aspirations of the individuals become more realistic. Job seeking begins and continues until the educational process is terminated.	This period begins when the worker seeks his/her first fulltime work position and continues until he/she has secured a work position in which he/she remains permanently (three years or more). During this stage, the individual tries numerous jobs by transfering, promotions, and trying another organization. When individuals find themselves, they enter into a period of stable work adjustment.	The stable period is a period of job persistence beginning when the worker finds a work position in which he/she remains more or less permanently. At this point, advancement in one's occupation to the highest level possible frequently occurs. Usually, this period extends until retirement, death, or until he/she enters another trial period.	Individuals at this period must learn to adjust to a new situation — that of being unemployed. Interests at this time tend to shift to the home. Frequently, changes take place in security, health, and friendship patterns.

	Exploration (15-24)	Establishment (25-44)	Maintenance (45-64)	Decline (65 on)
11 **Super**	Self-examination, role tryouts and occupational exploration take place in school, leisure activities, and part-time work. Substages of the exploration stage are **Tentative** (15-17). Needs, interests, capacities, values, and opportunities are all considered. Tentative choices are made and tried out in fantasy, discussion, courses, work, etc. **Transition** (18-21). Reality considerations are given more weight as the youth enters market or professional training and attempts to implement a self concept. **Trial** (22-24). A seemingly appropriate field having been located, a beginning job in it is found and is tried out as a life work.	Having found an appropriate field, effort is put forth to make a permanent place in it. There may be some trial early in this stage, with consequent shifting, but establishment may begin without trial, especially in the professions. Substages of the establishment stage are **Trial and Stabilization** (25-30). The field of work presumed to be suitable may prove unsatisfactory, resulting in one or two changes before the life work is found or before it becomes clear that the life work will be a succession of unrelated jobs. **Advancement** (31-44). As the career pattern becomes clear, effort is put forth to stabilize, to make a secure place in the world of work.	Having made a place in the world of work, the concern is now to hold it. Little ground is broken, but there is continuation along established lines.	As physical and mental powers decline, work activity changes and due course ceases. New roles must be developed; first that of selective participant and then that of observer rather than participant. Substages of this stage are **Deceleration** (65-70). Sometimes at the time of official retirement, sometimes late in the maintenance stage, the pace of work slackens, duties are shifted, or the nature of the work is changed to suit declining capacities. Many individuals find part-time jobs to replace their full-time occupations. **Retirement** (71 on). As with all specified age limits, there are great variations from person to person. But, complete cessation of occupation comes for all in due course, to some easily and pleasantly, to others with difficulty and disappointment, and to some only with death.

Table 1 continued

Crystallization (14-18)	Specification (18-21)	Consolidation (35 plus)
a. Awareness of the need to crystallize	a. Awareness of the need to specify	a. Awareness of the need to consolidate and advance
b. Use of resources	b. Use of resources in specification	b. Possession of information as to how to consolidate and advance
c. Awareness of factors to consider	c. Awareness of factors to consider	c. Planning for consolidation and advancement
d. Awareness of contingencies which may affect goals	d. Awareness of contingencies which may affect goals	d. Executing consolidation and advancement plans
e. Differentiation of interests and values	e. Differentiation of interests and values	
f. Awareness of present-future relationships	f. Awareness of present-future relationships	
g. Formulation of a generalized preference	g. Specification of a vocational preference	
h. Consistency of preference	h. Consistency of preference	
i. Possession of information concerning the preferred occupation	i. Possession of information concerning the preferred occupation	
j. Planning for the preferred occupation	j. Planning for the preferred occupation	
k. Wisdom of the vocational preference	k. Wisdom of the vocational preference	
	l. Confidence in a specific preference	

CONTINUED

Table 1 continued

Super (cont'd)	**Implementation** (21-24)
	a. Awareness of the need to implement preference b. Planning to implement preference c. Executing plans to qualify for entry d. Obtaining an entry job
	Stabilization (25-35)
	a. Awareness of the need to stabilize b. Planning for stabilization c. Becoming qualified for a stable regular job or accepting the inevitability of instability d. Obtaining a stable regular jor or acting on resignation to instability

Table 1 continued

ADOLESCENCE	EARLY ADULTHOOD	MIDDLE ADULTHOOD	LATE ADULTHOOD
Growth, Fantasy, Exploration (0-21) 1. Develop and discover one's own needs and interests 2. Develop and discover one's own abilities and talents 3. Find realistic role models from which to learn about occupations 4. Get maximum information from testing and counseling 5. Locate reliable sources 6. Develop and discover one's own values, motives, and ambitions 7. Make sound educational decisions 8. Perform well enough in school to keep career options as wide open as possible 9. Find opportunities for self-tests in sports, hobbies, and school activities in order to develop a realistic self-image 10. Find trial and part-time work opportunities to test early vocational decisions **Entry Into World of Work** (16-25) 1. Learn how to look for a job, how to apply, how to negotiate a job interview 2. Learn how to assess information about a job and an organization 3. Pass selection and screening tests 4. Make a realistic and valid first-job choice **Basic Training** (16-25) 1. Overcome the insecurity of inexperience and develop a sense of confidence	**Full Membership in Early Career** (17-30) 1. Perform effectively and learn how things are done 2. Accept partial responsibility 3. Accept subordinate status and learn how to get along with the boss and one's peers 4. Develop initiative and realistic level of aggressiveness within the limits of the job; to show full commitment 5. Find a mentor, sponsor 6. Reassess original decision to pursue this type of work in terms of opportunities and constraints in the organization 7. Prepare for long-range commitments and a period of maximum contribution or for a move to a new job or organization 8. Deal with feelings of success or failure in the first job **Full Membership in Mid-Career** (25+) 1. Gain a measure of independence 2. Develop one's own standards of performance and confidence in one's own decisions 3. Carefully assess own motives, talents, and values as basis for decision of how specialized to become 4. Carefully assess the organizational and occupational opportunities as basis for making valid decisions about next steps 5. Work through one's relationships with mentors and prepare to become a mentor to others	**Late Career in Nonleadership Role** (40 to retirement) 1. How to remain technically competent or how to learn to substitute wisdom based on experience for immediate technical skills 2. How to develop interpersonal and group skills if needed 3. How to develop supervisory and managerial skills if needed 4. How to learn to make effective decisions in a political environment 5. How to deal with the competitiveness and aggression of younger persons "on the way up" 6. How to deal with mid-life crisis and empty-nest problem at home 7. How to prepare for senior leadership roles **Late Career in Leadership Role** (Varies) 1. How to disengage from being primarily concerned with self to becoming more responsible for organizational welfare 2. How to handle organizational secrets and resources responsibly 3. Learn to handle high-level political situations both inside and at the organization/environment boundary 4. Learn how to balance continued high commitment to career with needs of family, especially spouse 5. Learn how to handle high levels of responsibility and power without becoming paralyzed or emotionally upset	**Retirement** (Retirement age) 1. How to maintain a sense of identity and self-worth without a full-time job or organizational role 2. How to remain engaged up to one's level of energy and abilities in some kind of activity 3. How to use one's wisdom and experience 4. How to achieve a sense of fulfillment and satisfaction in one's past career

Table 1 continued

	ADOLESCENCE	EARLY ADULTHOOD	MIDDLE ADULTHOOD	LATE ADULTHOOD
Schein (cont'd)	2. Decipher the culture, "learn the ropes" as quickly as possible 3. Learn to get along with the first boss or trainer 4. Learn to get along with other trainees 5. Accept and learn from the initiation rites and other rituals associated with being a novice (doing much of the "mickey mouse" tasks, etc.) 6. Accept responsibly the official signs of entry and acceptance (uniforms, badges, identity cards, parking stickers, company manuals)	6. Achieve an appropriate accommodation among family, self, and work concerns 7. Deal with feelings of failure if performance is poor, tenure is denied, or challenge is lost	**Decline and Disengagement** (40 to retirement) 1. How to find new sources of satisfaction in hobbies, family, social and community activities, part-time work, etc. 2. Learn how to live more closely with spouse 3. Assess total career and prepare for retirement	

Career Development Stages

This section presents a more in-depth review and synthesis of literature pertinent to the development of the diagnostic taxonomy. In order to organize the literature for this review, four career development stages were conceptualized. The four stages were based upon a synthesis of the literature presented in the previous section. This literature seemed to indicate that four major phases took place during the career development cycle: (1) preparation for an occupation and obtaining a job, (2) demonstration of competence in and adjustment to a new work environment, (3) maintenance and/or advancement of one's position in an established occupation, and (4) decline in involvement with the work place. These career development stages were named, respectively, (1) preparation, (2) establishment, (3) maintenance, and (4) retirement. This conceptualization is consistent with the conceptualization presented by Super and Hall (1978).

A significant element of the theories reviewed above is the delineation of developmental tasks associated with each stage. This model is followed in the review below. Thus, the purpose of the review is twofold: (1) to provide a full description of each stage through a comprehensive literature review and (2) to generate a list of developmental tasks for each stage as suggested by the literature.

The resulting career development stages and tasks presented below differ from previous conceptualizations in several important ways. While some stages may tend to be associated with a general age span, an individual may enter or re-enter any stage listed below at any point in the life span. The sequential, nonrepeatable, and age-linked aspects of career stages reported above seem to be in conflict with the fact that people are changing jobs in mid-life, entering the work force during late adulthood, and coming out of retirement and starting over. Thus, in the conceptualization presented below, an eighteen-year-old obtaining a first job, a thirty-five-year-old entering the job market for the first time, a fifty-year-old changing jobs, and a sixty-five-year-old coming out of retirement could all be placed in the preparation stage so long as one is dealing with preparation for an occupation and/or obtaining a job in the work force. Furthermore, these people may cycle through the same stages several times during their lives.

The stages are presented in a standard format composed of (1) an introduction to the stage, (2) a review of the literature pertinent to the stage, (3) a descriptive summary which synthesizes the literature, and (4) a listing of the goal and tasks of the stage.

Preparation Stage

The preparation stage encompasses that period of time and those activities which are relevant to preparing for an occupation and obtaining a position in the work force. Individuals pass through this stage for a variety of reasons.

The majority of people passing through this stage do so at the very beginning of the career development process. These people may have not yet held a full-time job and usually fall into the fourteen- to twenty-four-year age range (Super, 1963). Through exposure to familial, subcultural, and social forces, they take part in a variety of planned and unplanned learning experiences which shape their future career preferences and choices. They also begin to make formal and informal assessments concerning their personal capabilities and the world of work in general (Krumboltz, Mitchell, and Jones, 1976).

In the later phases of this stage, individuals make tentative choices about possible occupational goals, obtain appropriate academic or vocational training, and execute a job search. This latter activity can take a variety of forms. Some people take positions that are a result of placement during academic or vocational training. Others embark upon a series of formal interviews with selected organizations and institutions offering the desired type of position. Still others may choose to become self-employed.

Although the beginning of the career development process is usually associated with young people, an increasing number of older women begin this process following years spent as a homemaker. While such women may need to confront a unique set of issues surrounding the management of multiple roles, they share with younger people the demands and challenges of deciding on, and implementing, a career plan.

In addition to individuals at the beginning of their careers, many individuals in the preparation stage are negotiating major career changes. For example, self-employed persons may decide to join an organization. Individuals may choose to make a major change in their occupation or to make a change in organizational affiliation. Other individuals may choose to leave the military and to seek civilian employment. In such cases, these individuals must perform a series of self-assessments, make decisions, and locate a new position.

A final group of people in the preparation stage are those planning reentry to the work force following a period of either voluntary or forced unemployment. Women returning to the work force after fulfilling child-rearing responsibilities or following divorce or widowhood constitute an increasingly large reentry group, as do retirees and unemployed people seeking to resume part- or full-time employment.

Thus, while individuals in the preparation stage are most likely to be in the fourteen- to twenty-four-year age range, individuals may also pass through this stage later in life. It may seem that an eighteen-year-old obtaining a first job, a thirty-five-year-old reentering the job market, and a fifty-year-old changing jobs would perform basically different tasks in obtaining their jobs. However, as Super (1977) notes, many career tasks are similar across the life span, i.e., although the *content* of the task may vary, the *process* remains the same.

During the preparation stage, there are two major types of tasks. The first type encompasses those activities which are part of decision making. Individuals must assess their personal attributes and the work environment, generate and evaluate alternative career options, and select one of these options. This process is unchanging and applies whether individuals are choosing occupations, college majors, training programs, or organizations.

The second major type of task encompasses those activities necessary to implement the choices that have been made. This includes obtaining appropriate occupational training (be it academic or vocational) and obtaining a position in the chosen occupation or organization.

Other tasks which seem to have less emphasis during this stage require that individuals adapt to, and perform adequately in, the organization or institution with which they are affiliated. During the preparation stage, this affiliation is usually with an educational or training institution.

Once individuals have completed these tasks, the preparation stage is considered successfully negotiated. Individuals enter the establishment stage on the first day of employment.

Literature Review

The previous section introduced the general tasks to be accomplished during the preparation stage. This section will develop a more detailed conceptualization of the tasks of the preparation stage. This will be done by a review of available literature from three major sources: adult development, adult career development, and formulations of functional competencies.

Adult development. Several theories of adult development have implications for the preparation stage. Erikson's (1950) theory of psychosocial development postulates a stage requiring the establishment of personal identity. This stage is viewed as extending from the teen years to the early twenties. Establishing identity necessitates decisions concerning the types of adult roles to be assumed. Failure to accomplish this task results in "role confusion" and impedes movement to higher stages of development.

Chickering (1969) has further elaborated the tasks to be accomplished during Erikson's "identity" stage. In addition to establishing identity, Chickering's "developmental vectors" indicate that individuals must become autonomous and clarify purposes in the areas of vocation, recreation, and lifestyle. Similarly, Havighurst (1952) has indicated that the developmental tasks of adolescence include establishing emotional independence from parents, selecting and preparing for an occupation, and achieving assurance of economic independence.

The developmental themes of identity, independence, and preparation for an occupation also appear in the writings of Gould (1978), McCoy (1977), Sheehy (1976), Stevenson (1977), and Levinson, et al. (1978). Levinson and his colleagues, for example, characterize the "novice phase" of adult development (including individuals aged seventeen to thirty-three years) by four major tasks. One of these tasks, "forming an occupation," involves a preliminary definition of personal interests and values, investigation of those occupations which might allow one to live out these interests, development of required skills and credentials, and commitment to a particular line of work.

Thus, this conceptualization of the preparation stage draws upon the tasks of the earliest stages of general adult development. Two of the most important tasks, establishment of an identity and establishment of autonomy, seem to prepare one for and lead to a third task of importance, the selection and formation of an occupation. Although these tasks are usually associated with adolescence and early adulthood, it is possible that they may occur or recur at a later time. Thus, the tasks of the preparation stage may be confronted by older individuals and more than once in the lifetimes of many individuals.

Career development. Several authors have noted that career development is one facet of general human development (Osipow, 1973; Super, 1963; Tiedeman and O'Hara, 1963). Thus, most of these developmental career theories present the career process as taking place in periods or stages that parallel general development. Each period or stage is associated with a number of developmental tasks. For example, Miller and Form (1951, 1964) divide the "life work pattern" into five periods of work adjustment. The first three periods are relevant to the preparation stage. During the first of these periods, denoted the "preparatory period," individuals are learning in, and adjusting to, the home, school, and community and developing physically and mentally. During the second or "initial" period, individuals have their first experiences with the world of work through part-time and/or summer employment. The major task of this period, however, is that of completing an education. The third or "trial" period brings individuals fully into the work force as the first full-time job is secured.

Super's theory (1953, 1957; Super, Crites, Hummel, Moser, Overstreet, and Warnath, 1957; Super, Starishevsky, Matlin, and Jordaan, 1963) postulates five major stages of career development. During the second stage, exploration (ages fifteen to twenty-four), individuals are concerned with self-examination, role tryouts, and occupational exploration. The exploration stage has three substages. During the tentative substage (ages fifteen to seventeen), individuals consider their needs, interests, abilities, and values and make tentative occupational choices. During the transition substage (ages eighteen to twenty-one), occupational choices become more realistic. Individuals enter the labor market or undertake preparatory training. In the trial substage (ages twenty-two to twenty-four), a first job is entered and tried out as a life work.

Super (1963) has also delineated three age-linked sets of tasks which generally correspond to the substages of the exploration stage. Crystallization tasks (ages fourteen to eighteen) include the formulation of ideas about the self and the world of work, development of a time perspective, and selection of, and planning for, a generalized occupational preference. Specification tasks (ages eighteen to twenty-one) are similar but have as their goal the further specification of an occupational preference. In performing implementation tasks (ages twenty-one to twenty-four), individuals prepare for and enter the preferred occupation.

Havighurst (1964) has delineated the vocational development tasks which are associated with each of his major stages of life. During the first two stages (prior to age fifteen), individuals are acquiring the basic habits of industry and identifying with a working role. The third stage (ages fifteen to twenty-five) encompasses the tasks of exploring and evaluating alternatives and deciding upon and preparing for an occupation. Hershenson (1968, 1969) has developed a life-stage vocational development system which parallels the stages and periods postulated by Freud (1933) and Erikson (1950). During the social-amniotic, self-differentiation, competence, and independence stages, individuals are concerned with, respectively, the activities of being, play, work, and occupation. Individuals are also becoming socialized to the culture and family; developing self concepts; and assessing attitudes, values, abilities, and interests.

Schein's (1978) model postulates a career cycle consisting of nine stages. The first stage—labeled growth, fantasy, and exploration—contains ten tasks. These include developing and discovering personal needs, interests, abilities, values, and aspirations; finding realistic role models; using reliable sources of information about occupations; and performing well in school. The second stage, entry into the world of work, includes learning how to look for a job, learning how to negotiate a job interview, and making realistic and valid job choices.

Each theory reviewed thus far contains a range of developmental tasks to be performed over the life span. Other theories attempt to explain how one major task, that of choosing an occupation, is accomplished. For example, the theory of Ginzberg, Ginsburg, Axlerad, and Herma (1951) traces the choice process through developmental periods extending over approximately the first twenty years of life. During this time, individuals pass through the fantasy, tentative, and realistic choice periods. During the tentative period (ages eleven to eighteen), individuals identify career directions, evaluate personal abilities, become aware of personal values, and face the necessity of making decisions. During the realistic period (ages eighteen to twenty-two), individuals select final career paths and the resources necessary to prepare for and enter particular occupations. The theory has been reformulated so that "occupational choice is a lifelong process of decision-making in which the individual seeks to find the optimal fit between his career preparation and goals and the realities of the world of work" (Ginzberg, 1972, p. 172). Thus, decision-making remains a central part of the career development process.

Tiedeman and his associates (Tiedeman and O'Hara, 1963; Dudley and Tiedeman, 1977) have constructed a model of career development based upon the concepts of Ginzberg, et al. (1951). Their model of the career decision-making process consists of two aspects: anticipation and implementation. Anticipation is further divided into four steps: consideration of different alternatives (exploration), ordering and valuing of alternatives (crystallization), selection of an alternative (choice), and clarification of the selected alternative (clarification). As a result of this choice, an individual enters a new social system. The second aspect of decision-making, implementation, delineates the ways in which the individual adapts to the new social system and is not directly relevant to the preparation stage.

This review demonstrates that the early stages of career development are characterized by several common tasks. First, this is a time of exploration and information gathering. Individuals are learning about themselves and the world of work. Self concepts are developing and individuals are gaining an understanding of their abilities, values, attitudes, and interests. Initial contact is made with the world of work. Second, individuals must adapt to the surrounding environment (e.g., family, school, community, and culture). Completion of an education is a major activity, and adequate performance in the school environment is important. Finally, decisions must be made about one's career path. This includes the development of a time perspective, formulation of long-range plans, and preparation for entrance into a chosen occupation.

Formulation of functional competencies. While theorists in adult and career development have focused on the understanding of growth and change processes occurring during the life span, other efforts have been directed toward defining the competencies needed for effective functioning in educational and occupational realms. The resulting formulations of functional competencies have been utilized primarily as guidelines for the design and evaluation of educational programs and curricula but also are useful in elaborating and clarifying tasks of the preparation stage.

The first such effort was undertaken by the Exploratory Committee on Assessing the Progress of Education in the United States, appointed in 1964 under the auspices of the Carnegie Corporation. This effort involved the development of a plan to carry out a national assessment of educational progress. This work is currently being carried out in eleven academic areas by the Committee on Assessing the Progress of Education (CAPE), appointed in 1968. The project is known as the National Assessment of Educational Progress (NAEP; National Education Association, Department of Elementary School Principals, 1968).

In order to conduct this assessment, CAPE formulated a list of educational objectives which schools were seeking to attain. Included in their list were career and occupational development objectives designed to help students (1) prepare for making career decisions, including knowing personal characteristics relevant to career decisions and knowing the characteristics and requirements of different careers and occupations; (2) improve career and occupational capabilities, including implementing career plans and engaging in career-related curricular and extracurricular activities; and (3) have positive attitudes toward work (NAEP, 1971).

The second effort was undertaken by the Adult Performance Level (APL) project at the University of Texas (Austin). This project had as one of its objectives the specification of "competencies which are fundamental to economic and educational success in today's society" (APL, 1975, p. 1). Through a review of literature, a survey of state and federal agencies, a series of conferences, and interviews with adults, objectives for functional competency in five knowledge areas were developed. Some of the objectives included in the occupational area include building an occupational vocabulary, knowing requirements of given occupations, preparing for job applications and interviews, and being aware of resources which may help individuals in assessing their strengths and weaknesses and in finding and securing employment.

The third effort, a project undertaken at the American College Testing (ACT) Program, had as its objective the assessment of the core aspects of the career development of American youth enrolled in grades eight, nine, and eleven (Prediger, Roth, and Noeth, 1973). The Assessment of Career Development (ACD) instrument was devised to measure achievement in three areas: occupational awareness, self-awareness, and career planning. Included as subtests of this device were items assessing occupational knowledge, occupational preparation requirements, exploratory occupational experiences, job values, knowledge of basic career development principles, knowledge and implementation of the career planning process, and information seeking.

Finally, the Northwest Regional Educational Laboratory (NWREL) conducted a project to identify high school graduation competencies (NWREL. 1977). Competencies included in the career area included identifying occupations related to personal interests and abilities, determining requirements of occupations, preparing a resume, and completing application forms and interviews.

The projects reviewed in this section, although instituted by different organizations, have uncovered a number of common tasks in the career development process. These are (1) assessing personal attributes, including abilities, values, interests, and attitudes; (2) accumulating knowledge about occupations, including requirements for entrance and opportunities for advancement; (3) planning for an occupation and implementing those plans, including using relevant resources, obtaining training, and finding a job; and (4) developing attitudes and values which help individuals to think positively about the world of work.

Descriptive Summary

In the previous section, descriptive literature pertaining to the preparation stage was reviewed. The literature was taken from three major sources: general adult development, adult career development, and formulations of functional competencies. A synthesis of this literature indicates that the preparation stage consists of three major parallel activities: assessment and information gathering, decision-making and planning, and implementation of decisions and plans. Each of these activities is summarized below.

Assessment and information gathering. This is one of the most important activities of the preparation stage and consists of two parts. First, it includes a variety of behaviors which help the individual to answer the question, "Who am I?" Identity, self-concept, independence, autonomy, and self-knowledge are all key phrases in the delineation of necessary and appropriate behaviors.

During this time, individuals are struggling to resolve identity issues, develop accurate self concepts, and establish their independence in the world. Munley's (1975) research indicates that successful resolution of such issues contributes toward making "adjusted" vocational choices and gaining vocational maturity. Successful resolution is facilitated by gathering, understanding, and synthesizing knowledge about the self (e.g., abilities, values, interests, aspirations).

The second part of assessment and information gathering is developing a fund of knowledge about careers. This includes a variety of behaviors which help the individual to answer the question, "What is the world of work like?" Occupational knowledge, exploratory behavior, and work experience are key phrases related to these behaviors. Individuals will make their career choices partially based upon this knowledge (Holland, 1973).

Individuals need to explore the world of work in ways which are explicit, systematic, overt, and self-initiated (Jordaan, 1963). The occupational awareness thus gained involves possessing information about general occupational issues as well as preparation requirements for and functions performed by persons in specific occupations.

Decision making and planning. This activity includes behaviors involving the selection of a career/occupational goal and the formulation of a plan to attain that goal. The individual is asking, "What will I do?" (Hershenson, 1968). In addition to decision making and planning, the terms problem-solving, choice, and compromise are key phrases associated with these behaviors.

In making choices, individuals need to be aware of the decision making process and to take steps to initiate this process. During decision making, personal characteristics are matched with the requirements of an occupation. Choices are made based upon the appropriateness of this match. Individuals must then delineate a plan to implement their choice. Alternatives need to be available if attainment of an original choice is thwarted by external factors.

Implementation. This final activity includes behaviors which an individual must perform to prepare for an occupation and to secure a job in the work force. There is less theoretical literature on this activity than on the previous activities. Implementation seems to be a broad term encompassing all the specific behaviors to be performed in order to carry out the decisions and plans that have been formulated (Dudley and Tiedeman, 1977; Tiedeman and O'Hara, 1963).

Preparation for an occupation entails gaining the skills, knowledge, and attitudes that are necessary to qualify for entry into an occupation. Once preparation has been completed, individuals must complete applications, write resumes, arrange for interviews, and display appropriate interview behavior. In order to accomplish these tasks, there seems to be an implicit requirement that individuals perform adequately in and adapt to their environment during preparation. This may include obtaining adequate grades during schooling and training, adhering to organizational/institutional regulations, and developing appropriate relationships with significant persons in the environment.

Following the completion of these tasks, individuals leave preparation and move into the establishment stage on the first day of employment.

Preparation Stage Tasks

Based upon the summary and synthesis of the literature, the following tasks of the preparation stage have been formulated. Assessment and information gathering are reflected in Task I. Decision making and planning are reflected in Task II. The first component of implementation, preparing for an occupation, is outlined in Task III. Task IV pertains to adequate performance and adaptability during preparatory activities. Finally, Task V presents the final phase of implementation, that of obtaining a position in the chosen occupation.

Goal: To prepare for an occupation and to obtain a position in the work force.

Tasks: The task of the individual is to

I. Assess personal attributes and the world of work in anticipation of work entry/reentry
  A. Possess a vocabulary with which to discuss personal attributes and the world of work
  B. Know resources for assessing personal attributes and obtaining career/occupational information
  C. Be able to make use of these resources
  D. Extract and understand information from these resources
  E. Perceive relationships among personal attributes, the world of work, and the socioeconomic environment

II. Engage in decision making for work entry/reentry
  A. Perceive a need to choose an occupation
  B. Generate appropriate occupational alternatives
  C. Evaluate alternatives on the basis of personal attributes and occupational information
  D. Make initial occupational choice
  E. Plan for implementation of occupational choice
  F. Possess ability to make alternative choices/plans if initial choices/plans are thwarted

III. Implement plans to prepare for work entry/reentry
  A. Be aware of occupational preparation requirements
  B. Identify and select appropriate sources for occupational preparation
  C. Make appropriate arrangements for obtaining occupational preparation experience
  D. Understand the relevance that preparation has for an occupation

IV. Perform adequately in and adapt to the demands of the organizational/institutional environment during preparation
  A. Perform adequately in obtaining occupational preparation experience
  B. Adhere to appropriate organizational/institutional regulations
  C. Develop appropriate relationships with significant persons in the organizational/institutional environment
  D. Operate within the environment to meet personal/professional needs

V. Obtain a position in the chosen occupation

  A. Know where to locate employment opportunities

  B. Extract relevant information from descriptions of employment opportunities

  C. Select appropriate employment opportunities

    1. Consider the match between personal attributes and requirements of employment opportunities.
    2. Consider the organizational setting in making selections

  D. Take appropriate action to take advantage of employment opportunities

    1. Prepare a suitable resume of experience
    2. Complete procedural paperwork
    3. Display proper interview/negotiation behavior

  E. Analyze individual employment opportunities/offers

    1. Consider the impact of opportunity on life

  F. Accept or reject individual employment opportunities/offers

  G. Repeat job search tasks as necessary

Establishment Stage

The establishment stage encompasses that period of time and those activities which are relevant to demonstrating one's ability to function effectively in an occupation. This ability is demonstrated both by adequately performing one's job-related duties and by adapting to the organizational/institutional environment. This stage immediately follows the preparation stage and may be said to begin with the first day of employment.

While most workers in the establishment stage are young, other ages and a variety of work histories may be found among individuals in this stage. The largest group is composed of newcomers to the work force. These people begin their jobs with preparatory experience from a secondary school, a vocational school, a college or university, an apprenticeship, or informal training. Many will be naive about the complexities of the work environment, and they will spend much of their time learning how to function in the world of work. They must discover how this new environment differs from those which they have known previously.

A second group of individuals in the establishment stage displays what Super, Kowalski, and Gotkin (1967) have called "floundering" behavior. Although these people are part of the work force, they never succeed in completing the tasks of the establishment stage. As Super, et al. (1967) state, "floundering is defined as movement to a position which is not logical as a next step from the position being vacated, for which the subject lacks required aptitudes, interests, and preparation, or for which he is no better suited than for the position being vacated" (p. I-9).

The third group to be found in the establishment stage is composed of more mature workers. These are men and women who have decided to make a mid-life career change or to come out of retirement and reenter the work force. The change is most likely to entail entry into a new organizational/institutional environment or into an entirely new career field. Such changes are not uncommon (Byrne, 1975; Gottfredson, 1976; Sommers and Eck, 1977).

People in this third group do not need to spend a great deal of time learning to function in the world of work. For them, the work place is not a new environment. Instead, they will direct their energies toward such tasks as learning the structure of a new organization/institution and/or demonstrating competence with skills newly acquired or recently brought up to date.

People reach the establishment stage by first passing through the preparation stage. This first step is necessary to perform the tasks of self-assessment, assessment of the world of work, decision making, and job finding. However, there is great variability in the amount of time spent in this sort of preparation. At one extreme are persons who spend years in deciding upon, training for, and finding a job. At the other extreme are persons who enter establishment with little conscious preparation. For example, Robbins (1978) discusses the individual who takes over a business previously owned by parents or relatives now retired or deceased. For others, a job opportunity may present itself in the course of performing the requirements of a current position. With little forethought, an individual may decide to take advantage of such an opportunity.

Despite the different types of preparation and work histories of persons in the establishment stage, they must all complete the same common tasks. First, they need to become oriented and adapted to the organizational/institutional environment. This includes establishing harmonious relationships with supervisors, peers, and subordinates. Second, they need to learn the requirements of the position and demonstrate competency to appropriate people. Finally, they need to examine their satisfaction with their position, consider opportunities for advancement, and develop a career plan for the future.

While defining the completion of the preparation stage is relatively straightforward, i.e., as the day the individual begins employment, assessing the point at which the establishment stage has been completed is more complicated. Given the goal of this latter stage, completion can be defined as the point at which the individual has initially demonstrated his/her ability to function effectively in the occupation. However, criteria for establishing that this goal has been reached vary both across and within occupations and in both content and objectivity.

Objective indexes of goal attainment include successful completion of a probationary period, obtaining a merit raise, and being given more responsibility in the position. When such objective indexes are not available, the subjective assessment of the individual concerning his/her organizational functioning may be the salient criterion of goal attainment and, thus, successful completion of the establishment phase. Establishment may take as little as a month or as much as several years; those who complete this stage usually move to the maintenance stage, while some individuals never become fully established.

Literature Review

The literature reviewed in this section briefly presents theory and research that is relevant to the establishment stage. The literature is taken from two major sources: (1) adult and career development literature, which traces the life/career cycle through a number of sequential stages, and (2) organizational/industrial psychology literature, which examines the performance, adaptability, and career paths of persons as they function in organizational/institutional environments.

Adult and career development. Further understanding of the tasks and demands of the establishment stage may be gained from theories of general adult development and career development. Most of these theories postulate a life stage which can be summarized as "young adulthood" and describe tasks required in that stage of life. While the establishment stage is not confined to young adults, many of the tasks postulated in these theories have relevance for people in that stage, regardless of their age.

Several developmental theorists have discussed the central tasks of young adulthood. Erikson (1950) writes that the major task of this period is the development of interpersonal intimacy. Havighurst (1952) lists tasks of selecting a mate, learning to live with a marriage partner, starting a family, and rearing children. He also notes that getting started in an occupation takes an enormous amount of time and energy during young adulthood.

Levinson, et al. (1978) also discuss the centrality of becoming established in an occupation. For Levinson, the ages of twenty-two to thirty-three, covering life periods denoted as "Entering the Adult World" and the "Age 30 Transition," involve four major developmental tasks. One of these tasks, that of "forming an occupation," requires tentative commitment to an occupation and the revision of "dreams" in accord with the realities of the adult world.

Other theorists have noted similar themes. Gould (1972), for example, notes that professional (and personal) competency and mastery are concerns during this time of life. McCoy (1977) emphasizes the need to settle into an occupation, a process that is later followed by a reexamination of goals and values. Stevenson (1977) mentions the development of professional competence, the concern with productivity, and the acquisition of a role model that may take place at this time. Similarly, Vaillant (1978) reports that marriage, occupational success, and the establishment of relationships with mentors or role models are tasks of central importance in the years of young adulthood.

Other theorists have focused more directly upon the career development process. Miller and Form (1951, 1964), for example, have divided the "active work life" into five periods. One of these, the "trial" period, is "a period of job transition beginning when the worker seeks his first full-time work position and continuing until he has secured a work position in which he remains more or less permanently . . ." (1964, p. 542). The individual may change jobs within an organization or move from organization to organization until the "right" job is found. Although there is a great deal of occupational and residential mobility, there is limited vertical mobility.

Super's theory (1953, 1957; Super, Crites, Hummel, Moser, Overstreet, and Warnath, 1957; Super, Starishevsky, Matlin, and Jordaan, 1963) also posits a number of career development stages. During the establishment stage (ages twenty-five to forty-four), individuals attempt to make a permanent place for themselves in their chosen occupations. However, as indicated by the trial and stabilization substage (ages twenty-five to thirty) of the establishment stage, the chosen occupation may prove to be unsatisfactory. This may lead to one or more job changes before a satisfactory choice is made.

Super (1963) has also delineated a number of development tasks which roughly correspond to the establishment stage. These stabilization tasks (ages twenty-five to thirty-five) require that individuals settle into their occupations and begin to employ the skills learned during previous stages. In this way, these individuals demonstrate that their career choices were appropriate. If a choice is inappropriate, a job change may be made or some form of accommodation must be made to the inappropriate occupation.

Other theorists have also hypothesized the existence of career development stages and associated tasks. In the fourth of Havighurst's (1964) six stages of career development, "Becoming a Productive Person," individuals must master the skills required by their occupations. A similar stage postulated by Hershenson (1968), called the "Commitment Stage," requires the individual to implement an occupational choice, become committed to the occupation, and seek an answer to the question, "What meaning does my work have for me?"

Schein (1978) also has divided the work life into nine overlapping stages of career development. During basic training (ages sixteen to twenty-five), individuals must develop confidence, "learn the ropes," get along with superiors and coworkers, and accept responsibility. As workers enter full membership in their early careers (ages seventeen to thirty), they need to perform effectively, develop initiative, find a mentor, reassess original career decisions, prepare for long-range commitments or for a move to a new job or organization, deal with feelings of success or failure, and continue to accept responsibility.

The theories that have been presented above hypothesize that individuals pass through a series of stages in their career development process. The final theory to be reviewed in this section does not follow this format. Although based upon the developmental theory of Ginzberg, Ginsburg, Axelrad, and Herma (1951), the theory developed by Tiedeman and his colleagues (Tiedeman, 1961; Tiedeman and O'Hara, 1963; Dudley and Tiedeman, 1977) is itself not developmental in form. Career development is conceptualized as a decision-making process composed of two parts: anticipation and implementation. Anticipation includes tasks leading to an occupational choice. Implementation involves the realization of and adjustment to that choice. This is done in three steps, the first of which—induction—is relevant to the explication of the establishment stage. During induction, individuals are receptive to the demands of the new work environment. Individuals are willing to modify personal behaviors in an effort to become part of the group. They learn "the premises and structures-in-interaction required for continued identification" with the group (Tiedeman and O'Hara, 1963, p. 44). Only after this is accomplished can people exert influence upon the environment in an effort to effect changes they wish to make. This is similar to the tasks of learning how to work and learning how to get ahead discussed by Schein (1978).

This review of the developmental literature suggests three major themes characterizing the establishment stage. First, persons in this stage must become socialized to the work environment, passing through a period of induction. They learn the formal and informal rules which govern their behavior and attempt to establish harmonious relationships with others in the environment. Second, these individuals are concerned with demonstrating their ability to master the tasks imposed by the work environment. They must draw upon the skills learned during preparation in order to establish themselves as competent workers. If these skills are inadequate, new skills must be learned. Third, individuals in this stage continue to explore the wider work environment in an attempt to reach commitment to some small portion of it. Job changes are common as individuals attempt to maximize the fit between personal attributes and the requirements of a job. Furthermore, personal values are explored as individuals try to determine the meaning that work has for them and the role it will assume in their lives.

Organizational/industrial literature. This section reviews literature from the fields of organizational behavior and industrial psychology. The research and theoretical formulations reviewed herein were not intended to be comprehensive treatments of the career development process but, rather, were concerned with particular facets of the career development process. Thus, the literature has been grouped according to the facet of career development under examination. Although much of this literature was written in the context of the business and industrial environment, it is equally applicable to the general process of career development and to the tasks which must be accomplished. Thus, an examination of the tasks suggested by this literature will aid in understanding the tasks of general career development.

Two parallel processes begin with the new employee's first day on the job. First, since the newcomer enters the work environment with little understanding of specific job responsibilities or of the structure of the environment, his/her initial task is that of "learning the ropes" or "breaking in and joining up" (Van Mannen, 1972). Second, the organization/institution is as unfamiliar with the attributes and characteristics of the new employee as is the new employee of the organization/institution. It is important that personnel in the work environment orient the new employee to the environment's formal and informal rules and regulations. This can be accomplished through discussions of policies and practices, filling out forms, meetings with colleagues, and other orientation procedures (French, 1974).

Van Maanen (1972) refers to these tasks as organizational socialization or "the process by which a person learns the values, norms, and required behaviors which permit him to participate as a member of the organization" (p. 2). Van Maanen (1972) divides the socialization process into three steps. The first, anticipatory socialization, occurs before an individual has actually entered an occupation. The second step, entry into the organization, is likely to be characterized by confrontation with and adjustment to "reality shock" (Hughes, 1958). This occurs when there is a discrepancy between the expectations of the new employee and the reality of the organization. For example, new employees may find themselves given much less responsibility or challenge in their first assignment than they had originally expected. It becomes their task to adjust to this discrepancy.

The final step in socialization, denoted continuance, consists of "solutions the new member has worked out regarding the problems he had discovered during the course of first encountering the organization" (Van Maanen, 1972, p. 58). These solutions frequently involve attitudinal changes of a more basic nature than might have occurred during the previous (entry) step in socialization.

Other authors have also examined the socialization process and the problems which accompany it. In their examination of needs in an organizational setting, Hall and Nougaim (1968) found that young managers needed a sense of security and recognition during their first year on the job. During their second year, these needs came second only to a common concern for achievement and esteem. Overall, those managers who were most successful demonstrated a high tolerance for ambiguity and uncertainty in their jobs.

Hall (1976) notes that new employees frequently feel that organizations are not making use of their full potential. This happens when a new job is unchallenging or when a new employee has unrealistically high expectations about the challenge to be found in a first assignment. Webber (1976) also describes this situation in discussing the problems confronting new managers. He also lists the new employee's insensitivity to company politics, anxiety about personal integrity and commitment, and difficulty in dealing with issues of company loyalty.

Schein (1978) has enumerated five tasks that confront individuals as they enter and interact with business or industry. The first task, accepting the reality of the human organization, involves learning to work with the other people in the work environment. In order to cope with the second task, dealing with resistance to change, individuals must realize that new ideas are not automatically accepted but. rather, must be "sold" to key personnel. The third task, learning how to work, involves coping with too much or too little organization and too much or too little job definition. Learning how to get ahead, the fourth task, means that individuals must deal effectively with superiors and understand the workings of the organizational reward system. The final task, locating one's place in the organization and developing an identity, involves settling into the "niche" that one has made in the organizational hierarchy.

Hall (1976) has suggested several ways in which individuals can ease their entry into an organization. These include establishing good relationships with the new peer group, examining and understanding the organizational reward structure, and engaging in career planning in cooperation with the organization.

In addition to becoming socialized to the organization, individuals must also demonstrate competence in the performance of their responsibilities. Job performance can be viewed as consisting of, and being affected by, three major factors: adjustment, motivation, and skill level. Work adjustment refers to the state or condition of the individual in relation to the work environment (Crites, 1969). It is an indication of whether or not an individual "fits in" and is a result of the socialization process discussed above. Motivation refers to the dynamics of the will to work. Theories of motivation (e.g., Campbell and Pritchard, 1976; Lawler and Hall, 1970; Locke, 1968) seek to answer the question, "Why do people work?" Finally, skill level refers to the present status of a worker's abilities and competencies which he/she may bring to bear in accomplishing the tasks of the assigned job.

Thus, in order to demonstrate sufficient competency to become established in an occupation, individuals must become adjusted to the work environment, develop and maintain a reasonable level of motivation to achieve, and acquire the necessary job-related skills. More specifically, criteria for adequate job performance may include the following: quality of work, quantity of work, skills, technical knowledge, ability to work without supervision, attendance, punctuality, cooperation, communication skills, problem-solving skills, teamwork, interpersonal skills, safety, good attitudes, and initiative.

Thus, this review of literature from organizational behavior and industrial psychology suggests that two major activities are important during the establishment stage. First, individuals become socialized to the work environment. This includes learning the formal and informal rules and structures of the work environment as well as establishing harmonious relationships with others sharing the environment. Second, individuals develop, demonstrate, and display confidence in a satisfactory level of job performance.

Descriptive Summary

In the previous section, literature pertaining to the establishment stage was reviewed. The literature indicates that persons in the establishment stage are concerned with three major activities: socialization to the work environment, development and demonstration of competency, and exploration and self-examination. Each of these activities will be summarized below.

Socialization. This activity includes behaviors performed by individuals in order to become part of the work environment that they have chosen to enter. Adaptability, orientation, induction, and less formally, "learning the ropes" and "joining up" are other terms used to describe this activity. Individuals learn their way around the new environment, learn the explicit and implicit rules which govern their behavior, and establish relationships with others in the environment. Individuals must also adjust to any discrepancies between their expectations and the reality of the work environment. Also during this time, individuals already established in the environment will be determining whether or not a newcomer "fits in."

Competency. This activity includes adequate performance of a job and demonstration of this competency to oneself and to others. Mastery and job success are other terms used to describe this activity. Adequate performance involves being adjusted to the work environment, having adequate motivation, and possessing sufficient skills to accomplish assignments. A worker's competency can be judged against a variety of criteria depending upon the nature of the work environment and the nature of the job assignment itself. In order to meet these criteria, individuals need to employ skills developed during preparation or to learn new skills while on the job.

Exploration. This includes two types of behaviors. First, self-examination takes place after an individual enters an occupation. In a sense, workers continue to struggle with the identity issues raised in the preparation stage. Workers question the meaning and value of their work lives and determine how the current job fits in with personal philosophies and future plans.

Second, this self-examination may lead to the exploration of other job possibilities both within and outside of the current work environment. This, in turn, may precipitate the search for a new job and, possibly, a job change or changes.

Following the completion of these tasks, individuals leave the establishment stage and move into the maintenance stage.

Establishment Stage Tasks

Based upon this synthesis of the literature, the following tasks of the establishment stage have been developed. The activity of socialization is reflected in Task I. Competency is incorporated in Task II, while Task III addresses the activity of exploration.

Goal: To demonstrate initially one's ability to function effectively in an occupation.

Tasks: The task of the individual is to

I. Become oriented to the organization/institution

    A. Learn the way around the physical plant

    B. Learn and adhere to regulations and policies

- C. Learn the formal and informal structure of the work environment
  - 1. Learn and utilize appropriate channels of communication
- D. Learn and use environmental resources appropriately
- E. Learn and display good work habits and attitudes
- F. Develop harmonious relationships with others in the work environment
  - 1. Learn and demonstrate expected social behavior
  - 2. Achieve acceptance of others in the work environment
  - 3. Develop a personal support system inside work environment
- G. Display flexibility in adapting to organizational/institutional changes
- H. Integrate personal values with organizational/institutional values

II. Learn position responsibilities and demonstrate satisfactory performance

- A. Use previously acquired skills in position performance as appropriate
- B. Learn how to use job-related equipment, materials, and resources
- C. Acquire new skills as tasks of position change
  - 1. Take part in on-the-job training as appropriate
- D. Learn formal and informal quality and level of productivity
- E. Demonstrate adequate position performance to others in the work environment
- F. Experience self-confidence in position performance

III. Explore career plans in terms of personal goals and advancement opportunities

- A. Evaluate current choice of occupation
  - 1. Determine match between personal attributes and requirements of current position
  - 2. Assess potential of current position for satisfying personal needs
- B. Evaluate advancement opportunities of current position
  - 1. Know the requirements for advancement
  - 2. Assess personal capacity to meet requirements for advancement
- C. Develop a plan for advancement or position change
  - 1. Survey internal and external organizational/institutional opportunities
  - 2. Decide upon specialization within current occupation
  - 3. Consider alternatives in other occupations
- D. Implement plan for advancement or position change

Maintenance Stage

The theory of work adjustment formulated by Lofquist and Dawis (1969) states that "... each individual seeks to achieve and maintain correspondences with his environment. ... Correspondence can be described in terms of the individual fulfilling the requirements of the work environment, and the work environment fulfilling the requirements of the individual" (p. 45). The achievement and maintenance of this correspondence is the general theme of the maintenance stage.

Individuals in the maintenance stage have prepared for and established themselves in an occupation. These individuals are relatively satisfied with their work and are unlikely to make radical changes unless confronted with a crisis. Thus, during the maintenance stage, individuals shift from a major focus on occupational choice, preparation, and establishment tasks to adjustment and stabilization tasks. They work toward career stability characterized by constant employment, permanence in the same occupation, maintenance and protection of acquired abilities and skills, and accrual of seniority.

The major criterion for entrance to the maintenance stage is that the individual has decided to continue in the occupation in which he or she has become established. Although age is not a major criterion, it is more of a factor than in previous stages. Theorists estimate that persons in the maintenance stage range in age from thirty-five to sixty-five years (Miller and Form, 1951; Super, 1957). These years are associated with changes in personal health, interpersonal relationships, and family structure. Changes in the work place, both objectively in terms of duties and responsibilities and subjectively in terms of personal satisfaction and fulfillment, also take place during this time.

It is within the context of these changes that the tasks of the maintenance stage are to be accomplished. There are four general types of tasks. First, a variety of assessment and decision-making tasks need to be accomplished. Assessment of personal attributes and goals continues as in previous stages. One also needs to assess one's economic status, occupational prestige, and job satisfaction. On the basis of this information, decisions are made regarding one's personal goals and strategies for achieving a specified level of performance in one's occupation. This plan for maintenance may range from a minimal level, in which a person performs at the lowest level acceptable to the organization, to an optimal level, in which a person attempts to advance within his/her occupation.

Selection of a maintenance plan is followed by activities directed at its implementation, the second type of task of this stage. The third type of task involves adjustment to the changing life and organizational events occurring during the maintenance stage. The fourth and last task is that of performing at a level consistent with organizational requirements and the individual's maintenance plan.

The maintenance stage is followed by the retirement stage. As with previous stage transition points, it is difficult to specify the exact moment at which individuals enter retirement. This is further complicated by the fact that some people plan for, others postpone consideration of, and still others never reach retirement. Furthermore, there may be a period of overlap between stages for those individuals simultaneously maintaining their occupations and planning for retirement. Individuals contemplating retirement usually begin a gradual decrease of their work activity, slowly transferring responsibility to others or acting as mentor to a potential replacement. In other instances retirement may be more abrupt (e.g., an unexpected lay-off) or symbolized in a formal ceremony (e.g., a retirement banquet).

Literature Review

The literature reviewed in this section presents theory and research that is relevant to the maintenance stage. The literature is taken from two sources: general adult development and adult career development.

Adult development. Most life stage theorists have described a period of middle adulthood which is conceptually related to the maintenance stage. Although many of these theories are strongly age-linked, it is again emphasized that age is not a major criterion for entrance into the maintenance stage. These theories are reviewed in an effort to uncover the tasks which might be faced by anyone in the maintenance stage.

Jung (1971), in writing about the middle period of one's life, saw it as a time of enormous psychological significance with much self-introspection. Jung perceived a great unfolding in one's work life during the first half of these middle years, but saw the second half as characterized by conservative behaviors corresponding to a person's perceived responsibilities as opposed to the desires of earlier years. The second half of these middle years are also characterized by an attempt to take stock to see how one's life has developed and to analyze past accomplishments and present circumstances.

Erikson (1950) divided the life cycle into eight stages, each characterized by a major crisis or turning point. During the seventh stage, which corresponds to the maintenance stage, the individual deals with the issues of generativity and stagnation. Successful resolution of this stage results in a life characterized by generativity. The tasks of generativity include providing guidance for younger persons, producing something for future generations, and obtaining results from prior commitments. Failure to master these tasks results in stagnation, despair, and preoccupation with one's own needs.

Havighurst (1952) presented the developmental tasks that are associated with middle age (thirty to fifty-five years). These tasks include adjusting to the physical changes of middle age, developing interest in both civic responsibilities and adult leisure-time activities, assisting teenage children to become responsible and well-adjusted adults, and establishing and maintaining a reasonably stable standard of living.

In her study of 100 individuals aged forty to sixty years, Neugarten (1968) indicated that middle-aged persons see themselves as decision-makers and norm-bearers. An increasing amount of time is spent in introspection, self-appraisal, and the structuring and restructuring of past experiences.

Through their study of forty adult men, Levinson, Darrow, Klein, Levinson, and McKee (1978) delineated three stages (ages thirty-three to fifty) which correspond to the maintenance stage. During this time, the men in the study were concerned with settling down, making the transition from early to middle adulthood, and establishing themselves in the middle adulthood period.

There are two major tasks associated with settling down: establishing one's niche in society and working at advancement. An important aspect of this period is termed "Becoming One's Own Man" (BOOM). Primary developmental tasks include accomplishing goals, advancing up the career ladder, gaining authority and autonomy, and establishing additional independence in one's life.

Following the BOOM period, the individual undergoes mid-life transition. During this period, past choices and accomplishments are reappraised, the life structure (goals, interpersonal relationships, professional relationships) is modified, and increasing attention is paid to development as an individual. Later, as the individual enters middle adulthood, a new life structure is erected. The individual makes new choices or recommits him/herself on different terms to old choices. New choices may result in a career change or may change personal conditions in the individual's life (e.g., family structure). Adapting to those changes may indirectly affect one's work life.

Career development. Various theorists have formulated sets of career development stages similar in structure to the adult development stages presented above. Miller and Form (1951) identified five career developmental stages. The maintenance stage corresponds to their fourth stage, the stable work period (age thirty-five to retirement). This period is characterized by settling down in one's occupation and efforts toward advancement. Miller and Form (1951) note that although many individuals proceed sequentially through these five stages, actual career patterns differ depending on socioeconomic status of parents, race, residence, influence of peers, and other variables.

Super (1957) formulated a vocational development theory influenced by two themes: self-concept theory and concepts of developmental psychology. Super (1957) translated the concept of life stages into vocational stages with associated developmental tasks. According to Super (1957), a major task of the middle adult years (thirty-five years plus) is consolidation. Consolidation includes four general behaviors associated with consolidating and advancing in an occupation:

- Awareness of the need to consolidate and advance
- Possession of information as to how to consolidate and advance
- Planning for consolidation and advancement
- Executing consolidation and advancement plans

Consolidation tasks encompass the latter substage of Super's establishment stage as well as his maintenance stage. These stages convey the individual's desire to commit him/herself to an occupation and to maintain and/or advance in that occupation.

Other theories of career development have been more concerned with the development of careers in organizations rather than career development in general. These theories have usually used business and industrial managers as their reference group and have based their theories upon observations of this population. Some of these theories are reviewed below.

Hall and Nougaim (1968) based their theory on a study of young AT&T managers. Their advancement stage (thirty to forty-five years) begins approximately five years after entry into a new managerial position. The individual now becomes less concerned with "fitting in" the organization and more with moving upward and mastering it. Individuals express strong needs for achievement and esteem.

Speculating further, Hall and Nougaim (1968) describe a maintenance stage following the advancement stage. At this point an individual's career "levels off." The need to compete tends to decrease and the individual might act as a mentor to younger managers. One particular task of this period is finding means of self-gratification other than achievement in the organization.

Schein (1978) has developed one of the most comprehensive models that examines career stages, issues, and tasks confronting the leader and nonleader within the organizational context. He delineates three stages (spanning the time from age thirty-five to retirement) and seventeen tasks which are related to the maintenance stage. These tasks involve adjusting to biosocial changes (including personal "mid-life" crises, the "empty-nest" problem, and competing demands between family and career), assessing personal attributes (including talents, motives, values), making choices, and developing in the organization (including the development of technical, social, and supervisory skills, taking on mentor roles, and dealing with the "politics" of the organization).

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Descriptive Summary

In the previous section, descriptive literature relevant to the maintenance stage was reviewed. The literature was taken from two major sources: general adult development and adult career development. A synthesis of this literature suggests that individuals engage in three associated activities during the maintenance stage: career assessment, decision making, and implementation; adaptation to the organizational/institutional environment; and achievement of an acceptable level of performance. Each of these activities is summarized below.

Assessment, decision making, and implementation. Individuals in the maintenance stage periodically assess their career progress in terms of changing individual abilities, personality characteristics (e.g., motives, interests, values), career history, person-job match, and other background and biosocial variables (Hall, 1976). Based upon this information, individuals engage in three cyclical decision-making processes. First, they make initial choices about future career goals and maintenance plans to achieve those goals. Second, modifications in goals and plans may have to be made at a later time. Individuals may choose to reconfirm their commitment to previous choices or to reformulate their goals and plans. Third, individuals make decisions which link the maintenance stage with other stages. For example, the decision of when and how to enter retirement may be part of the individual's maintenance plan or it may be forced due to organizational, legal, or personal reasons. Other decisions may lead individuals to cycle through the preparation or establishment stages once again.

Adaptation. A major theme of recent theory and research is that the mid-career or mid-life stage is no longer viewed as necessarily a stable, uneventful period (Sheehy, 1976). Changes in the biosocial, interpersonal, and career arenas of life require that individuals adapt to these changes by employing various coping mechanisms. On the job, this may require adaptation to situations which are not directly related to the actual performance of one's job (e.g., a change in management, establishing good coworker relationships). Individuals must achieve a satisfactory level of correspondence between their behavior and the requirements of the organizational environment in order to maintain a desired level of functioning. Furthermore, life events taking place outside of the work place may have implications for the work environment. Adapting to these events and maintaining a balance between the demands of a career and life outside of the work place are also tasks to be performed at this time.

Performance. Occupational competency, or the ability to satisfactorily perform the specified duties of one's job, is an important element in the maintenance of a career. Individuals planning to maintain an occupation which is highly technical must be ready to learn new material as developments occur in their field. Those electing to achieve at a lower level of competence must decide which skills will be maintained, which pieces of new information will be retained, and which will not. Individuals must also determine the criteria (both official and unofficial) for acceptable performance as set by the organization or institution, supervisors, and coworkers.

Following the completion of these tasks, individuals may move into the retirement stage or cycle through the preparation or establishment stages.

Maintenance Stage Tasks

Based upon the summary and synthesis of the literature, the following tasks of the maintenance stage have been formulated. Assessment, decision making, and implementation are reflected in Tasks I, II, and III, respectively. Task IV pertains to the activity of adaptation, while performance activities are outlined in Task V.

Goal: To achieve and maintain a desired level of functioning in one's established occupation.

Tasks: The task of the individual is to

I. Assess self in terms of status within one's present occupation, position, and organizational setting
    A. Reexamine initial career aspirations and assess discrepancy with present occupational status and achievements
    B. Evaluate current abilities and skills to assess discrepancy with current requirements of one's present occupation
    C. Explore opportunities in one's occupation, both within one's current organization and in other organizations
    D. Assess life goals associated with work and life values and time perspectives (e.g., age, ratio of work to nonwork emphasis, time limitations)

II. Decide on a maintenance plan
    A. Synthesize information pertaining to present status, occupational opportunities in present occupation and organizational setting, and life and work goals
    B. Generate alternative plans depending if objective is to
        1. Maintain present position at a minimum level
        2. Advance within an occupation to achieve higher level of security and comfort
        3. Make an occupational change which would require leaving the maintenance stage
    C. Assess circumstances related to alternative plans (e.g., organizational setting, economics, age, health, family status)
    D. Analyze alternatives and compare with current status
    E. Decide on maintenance plan

III. Implement a maintenance plan
    A. Develop possible strategies to implement maintenance plan depending on objective to
        1. Maintain present position at minimal level which may require upgrading skills or developing coping behaviors
        2. Advance in occupation which may require new skills or organizational change
    B. Obtain information for implementation of different strategies to attain maintenance objective
    C. Select strategy based on efficiency and effectiveness in attaining maintenance objective
    D. Develop objectives and timetable for implementation of maintenance plan
    E. Take necessary action for maintenance plan implementation

IV. Adjust to changing personal and organizational events arising during maintenance

   A. Assess effects of event or change

   B. Develop coping behaviors to deal with changes and events in view of maintenance objective

   C. Use coping behaviors until adjustment to the change or event occurs

   D. Reassess coping behaviors if ineffective

V. Achieve and maintain performance at a level that is consistent with organizational requirements and individual maintenance plan

   A. Determine organizational criteria for acceptable level of performance based on current position and maintenance objective

   B. Evaluate performance in terms of organizational criteria and maintenance objective

   C. Adjust performance level to meet organizational criteria consistent with the maintenance objective

Retirement Stage

Over the past forty-five years, retirement has become an accepted custom in the United States. Consequently, retirement affects nearly every person's career development. Unfortunately, stereotypes of retirement situations often obscure, for everyone concerned, the significance of leaving full-time work and depending on a pension for financial support. While a great deal of attention has been paid to people entering and progressing through the working years, little attention has been given to those people exiting the labor force.

Unlike the previous career stages, retirement is a social and economic policy that affects individual career development. Before 1935 people were accustomed to working as long as they were able. Retirement was uncommon until Congress passed the Social Security Act in response to economic pressures to create jobs. This act, which was society's sanction for older people not to work, provided governmental pensions for workers reaching age sixty-five, then an acceptable although arbitrary benchmark. Subsequent private pension plans, developed after World War II, also adopted the age of sixty-five as the time for retirement. Judicial decisions further ingrained pensions and retirement policies into America's work life by ruling in 1948 that pensions were subject to collective bargaining (Woodring, 1976).

The significance of retirement, from a career development perspective, is that it is a last major transition in one's career prior to death. Of course, this is not true for those who choose to work full-time until death or until a severe disability overcomes them. In 1975, 86 percent of persons sixty-five or older were retired; the number of retirement-age persons is growing (Sheppard and Rix, 1977). A retiree is typically sixty to seventy-five years old, healthy and independent. Retirement is the time when self-determined leisure activities supplant the obligations of a full-time job. Private pensions, Social Security benefits, and investments are major sources of income. Retirement may be only part-time if part-time work is needed to supplement income. For definitional purposes, retirement is a status people assume by leaving full-time employment with a pension income that provides for a desired lifestyle.

Not everyone wants to retire, but some have a choice in the matter; others do not. Presently, mandatory retirement age is seventy. Forced, early retirements are not unusual. The ability to retire is a function of financial security which is dependent on a healthy economy. For example, it appears that an inflationary economy spurs people to continue working rather than retire. Harris, et al. (1979), in a nationwide survey, found that 51 percent of employees who were surveyed said that they would prefer to continue with some type of employment beyond the usual retirement age, sixty-five. In the same survey, nearly half (46 percent) of the retirees who responded reported that they would prefer to be working.

Note that retirement is not necessarily age related. While it's rare to find someone retired at age twenty-nine, it's common to find people in their late forties and fifties who are retired. Many pension programs have a "thirty and out" policy where after thirty years of service an employee may retire with full benefits. In military service the time is even less—twenty years.

As for an individual's career, retirement requires planning and action under circumstances that are not always clear or predictable. In terms of career progression, the retirement and maintenance stages are overlapped when retirement planning is considered seriously during maintenance. As retirement time nears, people tend to shift interests from maintaining in what may have been a lifelong occupation to planning for retirement. If a person chooses not to retire, then he/she remains in the maintenance stage unless a career change causes the person to recycle into another stage.

Other stages could be reengaged if part-time employment is necessary to supplement pension income. For example, one may train to be a cashier in a grocery store after having worked as an automobile assembler for thirty years, thus going through preparation for, and eventually establishment in, this part-time job.

Retirement is unlike the previous stages in that this segment of the working life is a defined social policy. How people prepare for and adjust to retirement, from a career development perspective, is not widely understood. The purpose of this section is to review the retirement literature to determine appropriate career development tasks and then structure them in a way that will be useful for career counseling.

Literature Review

Several perspectives on the retirement period can be marshalled from psychology, sociology, gerontology, economics, and anthropology. The value of examining these perspectives lies in the potential contributions of each to a comprehensive understanding of retirement. The following is a synopsis of relevant views on the retirement period.

Adult development theories. Jung (1971) portrays the last stage of life as a period when older people are more retrospective and less forward-looking, which is maladaptive. He posits that it is psychologically healthy for the elderly to set and strive for goals, one of which should be acceptance of death.

According to Buehler (1968), the last phase of adult development begins at age sixty-five. Physical decline and retirement from work are characteristic of this time of life. The vitality of a person in this phase is dependent on the prevalence of positive or negative feelings that have accrued in one's life.

Peck (1968) elaborates the last two stages of Erikson's (1950) theory, thus making it more pertinent to this inquiry. Peck describes three major tasks for the later years. First, individuals must be able to face the effect of retirement by redefining themselves through activities other than work; Peck denotes this task as "ego differentiation versus work role preoccupation." New activities must be found to provide the individual with a sense of satisfaction. Also, individuals must avoid preoccupation with their physical well-being or with unattained goals and objectives. Those who avoid these preoccupations will adapt more successfully to the later years than those who don't avoid them.

Havighurst (1952) proposes that in the later adult years an individual must assume a defensive or conservative strategy by holding onto acquisitions and learning how to cope with and adjust to changes. These tasks include adjusting to decreasing physical strength and health, adjusting to retirement and reduced income, adjusting to the death of a spouse, establishing an affiliation with one's age group, meeting social and civic obligations, and establishing satisfactory physical living arrangements.

More recent theories of adulthood which speak to the retirement period (Gould, 1972; Levinson, et al., 1978; Lowenthal and Weiss, 1976; McCoy, 1977; Neugarten, 1968; Stevenson, 1977; Vaillant, 1978) reflect similar concepts of behavior noted by earlier theorists. There are, however, some new ideas that add to the understanding of the retirement period, and they will be mentioned briefly here. Both McCoy (1976) and Stevenson (1977) identify use of leisure time as a prominent feature of retirement. This reflects the increased importance leisure time plays in our postindustrial society where increasingly less time is spent working (Bosserman, 1977). Stevenson (1977) also introduces

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the view that adult development is cyclic. That is, there are recurring periods of buildup, stability, breakdown, transition, and then buildup again. Neugarten (1968, 1976), in arguing the insufficiency of a biological approach to adult development, advances the idea that a social clock governs the timing of life events. Whether or not a crisis develops depends on the timing of the event. For example, involuntary retirement at age fifty-nine could be a shattering experience. Additionally, most contemporary theorists are dispelling the notion that all major life events are crises for everyone.

Interdisciplinary retirement theories. Sussman (1972), a sociologist, maintains that the number of options an individual can exercise in the retirement process is the central variable. The criteria of success in retirement is self-respect and social responsibility but, he notes, the opportunities to achieve success are narrowed by retirement. A successful retiree understands available choices, is aware of their range, is able to match them with his/her needs and capabilities, and can act effectively on them.

Sussman identifies two categories of constraints on options: outer boundaries and inner boundaries. Outer boundaries which constrain options include biological and geological statuses, public and private benefits, and society's value system. Inner or personal constraints, which operate more directly on the exercise or foreclosure of options for the individual, include personal characteristics, situation prior to retirement, circumstances of retirement, and the individual's perception of the situation.

Options are strongly influenced, Sussman adds, by a person's social linking systems such as friendship groups, the kinship network, marital situation, inheritance factors, work systems, and voluntary organizations. Sussman indicates that maximum use of options is determined by the interaction of variables in the above categories. His central hypothesis is that option maintenance is directly related to self-esteem and social responsibility.

Taylor (1972), preferring a psychological development approach to the phenomenon of retirement, finds very little in existing literature to conceptualize retirement in developmental terms. To begin to develop such a conceptualization, Taylor has formulated the following postulates:

1. Retirement is not an event, but a process which should be studied to determine interrelationships among identifiable elements not just of retirement, but of the entire life span.
2. Retirement is related to, but not necessarily the focus for, other developmental phenomena such as family relationships, physical abilities, economic conditions, or a complex of self-regarding attitudes.
3. Retirement is related to earlier aspects of the life situation.
4. The work life has its own developmental schedule which may not correspond to other developmental experiences of the life span.
5. Retirement is related to other problem-centered behavior, such as not achieving goals, and follows sequential steps in resolution.
6. Retirement is still not a modal crisis in later years in that it is not universal.
7. Substitution for values lost through retirement is not equivalent to growth precipitated by retirement.
8. Retirement is a primitive social solution to developmental change.

Taylor offers these postulates as a starting point for investigating retirement. He does note, however, that trying to measure the complex behaviors associated with retirement will be difficult at best because of the unavailability of precise, evaluative instrumentation. The eight postulates offer a perspective from which problems related to retirement can be treated.

Clark (1972), an anthropologist, considers retirement as an institution of society and as a process that has personal meaning. Her emphasis is on the latter. Clark contends that retirement may affect every relationship between the culture and the person. These include self concept, social relationships, orientation in time and space, motivations, and values. She notes that the American value system is undergoing changes that may compound and change the meaning of retirement. Clark suggests that in light of our limited knowledge of retirement, cross-cultural studies would clarify retirement in industrial societies as well as lead to a pan-cultural theory. A comparative study involving cultures with value systems different from ours may serve to make predictions about our future.

Shanas (1972) provides valuable commentary on retirement studies that, she reports, reflect two covert assumptions made by investigators. Concentrating on literature dealing with the adjustment problems individuals have during retirement, she found investigators assuming processes of substitution and accommodation in their methodology. Substitution means that an individual adjusts to retirement by finding activities or relationships that give satisfaction previously found in the work setting. Accommodation means the individual redistributes energies and reorganizes his or her system of gratification.

Shanas prefers to develop theory from these heretofore covert assumptions and, for her, the accommodation task holds the most promise of explaining the adjustment to retirement. Her accommodation theory, rooted in sociology, presumes personal conflict. Accommodation is the balance or restoration of equilibrium that is achieved after conflict. Retirement is a conflict to which individuals must continually adjust. This approach presumes that (1) factors influencing retirement are different than those influenced by retirement; (2) adjustment depends not on the causes of retirement, but on life changes during retirement; and (3) adjustment to retirement may vary as social structural and social psychological constraints vary and impinge on the individual.

Figure 1 depicts the accommodation process Shanas has suggested.

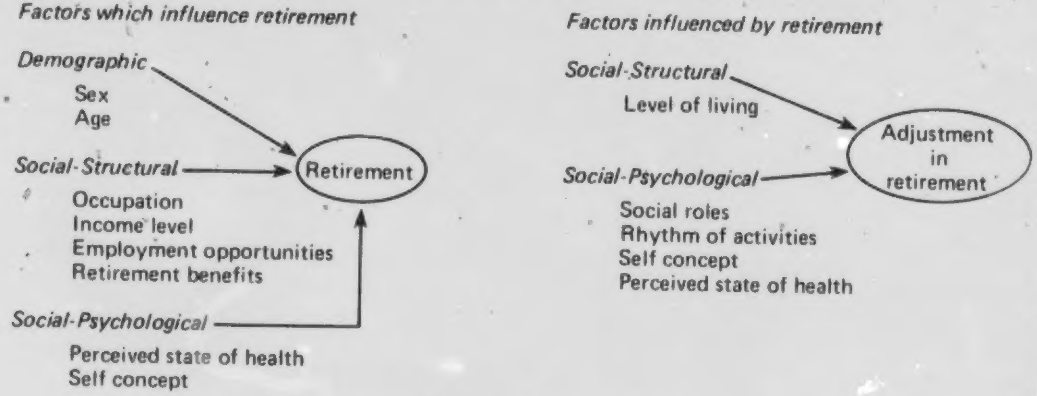

FIGURE 1. The Accommodation Process in Adjustment in Retirement.

From "Adjustment to Retirement: Substitution or Accommodation?" by E. Shanas, in F.M. Carp (Ed.), *Retirement.* Copyright 1972 by Behavioral Publications, New York, reprinted by permission.

Atchley (1976, 1977) suggests a schema for what he calls the various phases of the retirement process. These are described in Figure 2.

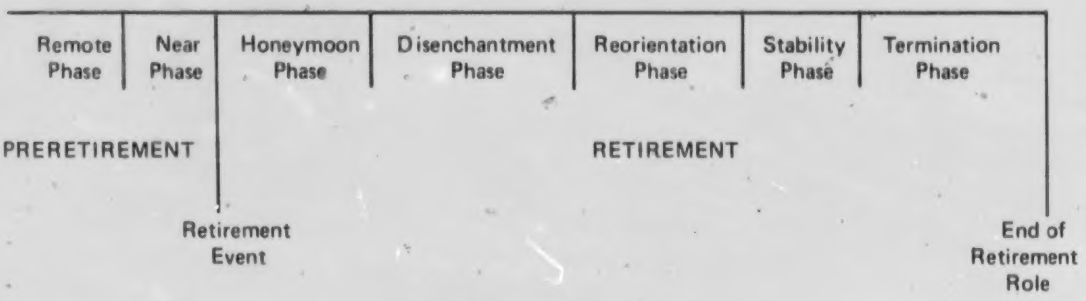

FIGURE 2. Phases of Retirement.

From *The Sociology of Retirement* by Robert C. Atchley. Copyright 1976 by Schenkman Publishing Company, Inc., Cambridge, Massachusetts. Reprinted by permission.

Atchley's two divisions of preretirement, remote and near, overlap with the main working period of one's life. During the remote phase, a person is generally aware that he or she will eventually retire, but the specifics are vague. In the near phase, the individual is setting a retirement date and is beginning to think in concrete terms about the ramifications of retiring. Also, the prospective retiree begins fantasizing about what to do during retirement. If the fantasies are realistic, Atchley contends, then the transition will be smoother.

Atchley analyzed the behaviors of people during retirement and found five general patterns which are described below. He is careful to qualify these patterns by noting that not all people go through each phase or go through them in the same sequence for the same amount of time.

Some people go through the honeymoon phase after the retirement event. This phase is characterized by intense activity which is dependent usually on available financial resources. It turns out to be a pace which typically cannot be maintained, and the retiree must settle into a more stable routine.

Disenchantment will likely occur if preretirement planning has been unrealistic. In effect, a mistake will have been made and the individual must start over to organize options in hopes of achieving a satisfying retirement. If disenchantment is significant, then reorientation is necessary. During this phase the individual takes stock of the situation, defines realistic goals, and explores ways to achieve them.

The stability phase is the period when satisfaction is reasonably constant and life, for the most part, is predictable. The criteria for satisfaction can accommodate change. The retirement role has been mastered.

Termination of the retirement role comes with serious illness, disability, loss of finances, or returning to a job. In any case, aging or biological decline happens gradually to force one to yield retirement roles.

Atchley offers the above as an illustrative device to make it easier to understand the retirement process. He notes there is no realistic way to tie the phases of retirement to chronological age or to a period of time.

The above synopses of relevant viewpoints on retirement from various disciplines suggest clearly that people must cope and grow with the changes attending the retirement period. The myth that people simply stagnate and fade away in later years is dispelled.

Career development theories. Turning now to the career development and career guidance literature, it is apparent that until recently it dealt mainly with youth (Campbell and Shaltry, 1979; Kimmel, 1976). Yet, there is emerging interest in adult career development and counseling expressed through papers, books, and articles offering a career-related approach to the various adult stages (Crites, 1979a; Entine, 1977; Schlossberg and Entine, 1978; Sinick, 1977; Super, 1977). Little attention has been paid, however, to retirement as a unique part of the career development process. The following will touch on those writings that have implications for the retirement stage.

Miller and Form (1951) view retirement as the last period in the work life schema. Retirement begins when the worker leaves full-time employment. This transition includes the following social and vocational adjustment problems: shifting from work to home interests, changing status, reducing comrade relationships, maintaining security in old age, and coping with declining health and energy. How well the retiree adjusts depends on his or her attitude toward changes retirement brings.

Super (1957) treats retirement as a period of decline consisting of two substages: decline leading to retirement and the retirement period itself. During decline the individual begins slowing down and cutting out activities as a result of decreasing mental and physical capacities. During actual retirement the individual makes major adjustments to reduced and substitute activities. Decline and retirement are a source of problems, according to Super. A person's capacity to be productive is limited, leading to possible role and self-concept changes. The process of altering one's self-concept can be a major source of frustration.

Havighurst (1964) emphasizes the productive role of an individual over the life span with regard to societal expectations of people at work. The latter part of life, according to Havighurst, revolves around engaging a greater range of activities that benefit society and reviewing the work life with satisfaction in having contributed to society.

Sinick (1977) addresses the practical matters of counseling those who are adjusting to retirement. He touches on several problems, not the least of which are negative attitudes toward retirement. Living in a society that values youthfulness and work (productivity) creates potential problems for retirees. They may encounter loneliness, discrimination, or an inability to use previously structured time for their own well-being. A major challenge to counseling, as Sinick sees it, is helping retirees use their time creatively in moving toward self-actualization. These could be leisure or work activities.

Research findings. The literature offers a variety of efforts that were designed to understand certain aspects of retirement. Much of the research on retirement is descriptive. The importance of extant findings lies in the context it renders to career guidance counselors in dealing with retirement problems. Some of the more pertinent findings are reported below.

- Decline in health is associated with age but not with retirement. (Streib and Schneider, 1971)
- Retirement has no definite impact on mental health disorders. (Lowenthal, 1964; Nadelson, 1969)

- Morale is generally unconnected to work or retirement. (Simpson, Back, and McKinney, 1966a)
- Retirement produces no significant change in life satisfaction. (Streib and Schneider, 1971)
- Leaving the job tends to reduce the perception of self-involvement but not optimism or autonomy among retirees. (Back and Guptill, 1966)
- Self-esteem tends to be quite high in retirement. (Cottrell and Atchley, 1969)
- Job deprivation, the extent to which one misses a job, is low in retirement if the individual looks forward to retirement, achieves most job ambitions, and has adequate retirement income. (Simpson, Back and McKinney, 1966b)
- Most people continue in retirement with the same activity patterns they had when they were working. (Atchley, 1977)
- Most preretirees are unprepared to do preretirement planning or to make decisions about part-time work during retirement. (Harris, et al., 1975)

Life satisfaction is a key focus of many studies. In their longitudinal study, Streib and Schneider (1971) found that over 70 percent of their respondents seldom or never felt useless in retirement. About 10 percent returned to work. Heidbreder (1972) found that an overwhelming majority of white- and blue-collar workers who retired early were satisfied with retirement. Adjustment problems that existed were concentrated among ex-blue-collar workers with low incomes, poor health, and little education. Satisfaction in retirement is tied to overall life satisfaction (Wexley, McLaughlin and Stearns, 1975).

There are those, however, who have problems with retirement. Among retirees having difficulty adjusting to retirement, about 40 percent reported reduced income as the source of difficulty; 22 percent missed the job, and 38 percent reported difficulty arising from such factors as death of a spouse and declining health (Harris, 1965).

The research on retirement is diverse and relatively uncoordinated. It seems ad hoc; no apparent attempts have been made to build a specific career development theory of retirement. Perhaps this is explainable by the fact that people have been retiring only since about 1935 and that interest in retirement as a career development stage has developed only recently. Much of the focus is on retirement as a new status rather than on the orderly progression of individual careers. This is not to fault what has been learned about those in retirement but only illustrates how little is known about career development of individuals as they disengage from the full-time work force.

Descriptive Summary

Career development behavior in the later years of life is clearly influenced by economic and social policies and pressures. Mandatory retirement policies and age discrimination combine to shorten the full-time work life of Americans in general. There are, however, discernible alternative patterns of work in the later years. There are those who continue full-time employment until death or disablement. Also, there are persons who retire before sixty-five and do not return to work again. And there are those who are in and out of retirement. Research indicates that those in physically demanding jobs are more prone to retire at the earliest possible age while the opposite is true for those in professional and white-collar jobs (Jacobson, 1973). Still others have neither the opportunity for work nor the choice of retirement, e.g., "hard core" unemployed.

The common issue affecting everyone who considers retiring from work is financial security. Without a sufficient income to permit a reasonably comfortable lifestyle, people may be unable to retire or may find it necessary to return to work following retirement. And the number of people who can afford to retire is closely related to prevailing economic conditions. In an inflationary economy, people without substantial investments may be unable to survive on a fixed pension. Finally, the number of people who can retire is closely related to the number of workers contributing to Social Security for the support of retirees. With an increasing population of retirement-age people, retirement may eventually become the exception rather than the rule.

Given the variety of forces that change dynamically and are beyond the control of the individual, a person is hard pressed to plan with certainty for entering the retirement stage. It is rather like preparing to shoot a moving target that you don't know for sure will be available when you are ready to pull the trigger.

Similarly, the change and uncertainty with which people must cope also affects research and theory concerning career development of older citizens. It forces the kind of temporary, general statements seen in the work of theorists and researchers described earlier. In fairness it should be noted that while attempts to understand older adult career behavior have produced general, tentative, and perhaps crude information, it is likely that even more useful information will come forth to assist people with career-related changes in their later years.

It seems reasonable to assume people will continue to retire even though the mandatory retirement age has been raised to seventy (and signs are it will be abolished) and inflation continues to bind financially. The trend toward early retirement—precipitated by "thirty years and out" programs, early eligibility for Social Security, and a fairly healthy economy through the sixties and parts of the seventies—shows signs of abating (Harris, 1979). Although people will retire it may be more on a part-time basis (Barton, 1979; Drucker, 1978; Hitchcock, 1979; Sheppard, 1977) which means that people will retire from lifelong occupations but will seek supplementary incomes through part-time work.

Given what is known about retirement, it is possible to structure the phenomenon from a career development perspective. That is, certain tasks can be constructed to represent what one must do, generally, to maximize personal options prior to and during retirement. It is apparent that people must decide if they want to retire or continue working full-time or part-time; they must plan how to execute their decision; they must be alert to financial ramifications; they must consider the use of leisure time; they must consider changing interpersonal relationships; and they must be aware of the role health plays in the retirement years.

In considering the career development of individuals, the retirement stage is viewed as consisting of two phases: preretirement and retirement. The processes of both phases include decision making and implementation regarding such issues as (1) comparative economic incentives to work or retire, (2) health needs and benefits available, (3) financial resources, (4) availability of supplementary work, (5) psychological and social needs related to work and retirement, and (6) assessment of likely life span (Cassell, 1979).

Retirement Stage Tasks

Based on the above, the following goal and tasks are offered to reflect the pervasive career development aspects of retirement.

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Goal: To maximize personal options in leaving full-time employment to assume a retirement role

Tasks: The task of the individual is to

I. Decide whether or not to retire full-time or part-time
   - A. Assess values regarding work
   - B. Assess the values of leisure time
   - C. Assess personal financial situation
   - D. Assess economic climate, e.g., place of employment, national economy, economic trends

II. Explore career options for part-time retirement
   - A. Examine new career possibilities
   - B. Identify personal skills that would transfer to new job settings
   - C. Determine barriers and facilitators to employment, e.g., health, location, and hours of employment
   - D. Determine employment possibilities

III. Assess interpersonal relationships
   - A. Judge the satisfaction and importance of interpersonal relationships on and off the job
   - B. Determine changes in relationships that full- or part-time retirement may bring, e.g., spouse, family, living alone

IV. Develop and maintain a retirement plan
   - A. Identify personal goals in retirement, e.g., level of income, use of leisure time, part-time employment
   - B. Identify required steps in negotiating the retirement process, e.g., application for private pension, filing for Social Security benefits, applying for part-time employment
   - C. Identify critical factors to monitor before and during retirement, e.g., inflation, health
   - D. Develop a contingency plan in the event of "disaster", e.g., death of spouse, forced retirement, failure of investments, depression
   - E. Periodically assess adequacy of plan

Summary

The literature reviewed above presented an overview of the career development process across the life span. Career development stages were used to organize the literature. As a result of this review, comprehensive lists of career development tasks have been constructed for each stage. This has been a significant accomplishment; with the possible exception of the preparation stage, a comprehensive list of career tasks has not heretofore existed in the career development literature.

In effect, the tasks represent a distillation of the career development process and should have implications for the construction of a diagnostic taxonomy. One possible avenue is to define a career development problem as the failure to attempt or to adequately master a career development task. Therefore, a comprehensive, yet parsimonious, list of career development tasks could form the basic structure for the classification of career development problems.

The lists of tasks from the previous four sections are too unwieldy and need further refinement. An examination of these tasks indicates that common processes seem to occur in each stage. That is, regardless of the specific stage content or context, four common *themes* seem to describe the career development tasks. These four themes are (1) decision making (a behavioral process in which information about the self and the environment is gathered and, based upon this information, alternatives are evaluated and selected), (2) implementing plans (a behavioral process in which activities based upon decisions are scheduled for and put into action over a period of time spanning the present and future), (3) organizational/institutional performance (a behavioral process in which an acceptable level of productivity is reached), and (4) organizational/institutional adaptation (a behavioral process in which individuals adjust in order to take part effectively in the environment).

These four processes have been used as the basis for the diagnostic taxonomy described in the following chapter.

Chapter III

A DIAGNOSTIC TAXONOMY OF ADULT CAREER PROBLEMS

This chapter, which consists of three parts, describes the development and conceptualization of a diagnostic taxonomy of adult career problems. Part one examines the form and function of classification systems. The second part discusses the rationale for the development of the taxonomy, i.e., purpose, criteria, and the consideration of alternative taxonomic models based upon the literature review from the previous chapter. The last part presents the taxonomy.

Taxonomic Approaches

Before developing the taxonomy, several taxonomic approaches were reviewed to identify issues of form, function, and criteria, as well as pitfalls encountered in previous efforts. The approaches chosen for review were limited to vocational and behavioral problems. The following were reviewed:

- The *Diagnostic and Statistical Manual of Mental Disorders* (DSM-II and DSM-III)
- Thorne's Etiological Classification System
- The series of taxonomic approaches related to vocational choice, 1935 to present

The examples noted were examined for format, criteria of development and application, and theoretical and practical problems; that is, How is the taxonomy arranged? What purposes or principles should or does a taxonomy serve? What are the problems to consider while developing a taxonomy? The following is a synopsis of relevant characteristics of taxonomies and issues of taxonomic development.

The Diagnostic and Statistical Manual of Mental Disorders (American Psychiatric Association, 1968) is an attempt to provide an internationally agreed-upon organization of psychiatric disorders. The DSM-II consists of diagnostic terms organized into categories which could be agreed upon generally by well-informed psychiatrists. Categories are limited to distinct, general, behavioral problems while relevant manifestations appear as subcategories. Some categories are constructed with causes of problems while others consist of symptoms. The categories are followed by definitions of terms that delineate properties of categories and subcategories.

The third edition of the DSM has been undergoing development and preliminary trials since 1973. Schacht and Nathan (1977) report that there are still difficulties with the DSM. The following are some of their main concerns:

- The levels of abstraction used to manipulate the diagnostic application are an improvement over DSM-II but still reflect a crude level of knowledge.
- Reliability of judgments is still problematic.

- Operational constructs raise questions of performing culture-fair assessments.
- The operational nature of diagnostic criteria is suspect because there is insufficient research on reliability and internal consistency.

In another approach, Thorne (1967, 1968) developed an etiologically-based classification system of personality disorders including classifications of disorders of part functions, e.g., sensory disorders, perceptual errors, and semantic disorders. His classification schema is essentially a category-subcategory arrangement. Thorne maintained that the following factors must be considered in the diagnosis of any disorder (1) primary etiological factors, (2) secondary precipitating factors, (3) pre-existing personality, (4) characteristic personality reactions, and (5) situational factors and reactions (Patterson, 1973, p. 483).

In his review of diagnostic approaches that are more relevant to vocational behavior, Crites (1969) reviewed existing systems which essentially are definitional and limited to vocational choice. For example, Bordin (1946) devised five categories of vocational choice problems: dependence, lack of information, self-conflict, choice anxiety, and no problem. Crites noted three major problems with similar systems as those of Berezin (1957), Byrne (1958), Hahn and McLean (1955), Pepinsky (1948), Robinson (1950), and Williamson (1939). First, these systems are not reliable when using independent judges to classify cases. Concurrently, then, the categories of problems are not independent and mutually exclusive. Finally, these systems do not have necessarily exhaustive categories in that all observed cases cannot be classified. Crites (1969) proposed a new system for diagnosing vocational choice problems. This system combines aptitudes and interests as variables that are measurable with standard instruments which could lead to confirmation of construct and predictive validities.

The review of relevant taxonomies led to several conclusions which formed a basis or guide for the taxonomy. Most approaches tended to use categorical breakdowns with subcategories. Some taxonomies are categorized by physiological, psychological, or environmental defects or problems which may be stated as a medical cause, behavioral symptom, or as a sociological definition. Most go beyond vocational issues as far as substance. Those taxonomies in the vocational realm are typically limited to vocational choice and deal mainly with youth or young adults.

As noted in the introduction, many leading authorities in vocational psychology have stressed the need for improved techniques for the differential diagnosis and treatment of adult career development problems. The issues in question are, What are the dimensions and parameters of adult career planning and adjustment problems? What diagnostic techniques are appropriate for assessing these problems? What are the most effective techniques for treating these problems? The contribution of this study is that it examines career problems across the adult life span, whereas previous work has concentrated mainly on the career choice of youth or young adults. As a beginning, it focuses on the dimensions and parameters of adult career problems.

Criteria

The purpose of the taxonomy is to classify career development and adjustment problems over the adult life span. To ensure that the taxonomy can achieve this purpose and make a significant contribution to the field of adult career development, criteria for the taxonomy were specified. These criteria were drawn from the taxonomic literature and consultant suggestions. As follows, it was proposed that the taxonomy –

1. be sufficiently comprehensive and practical in its content and form to be used by practitioners in a variety of settings;

2. be applicable across diverse adult populations;
3. be parsimonious in its use of constructs and variables;
4. lend itself to preliminary validation and encourage research in the field and in the laboratory;
5. be in a form which fosters the formulation of treatment interventions through the concept of differential diagnosis and differential treatment;
6. contribute to the ongoing task of theory-building in adult career development; and
7. establish mutually exclusive categories for classifying problems.

In addition, it was necessary that the taxonomy derive from existing literature in the area of adult career development. In other words, the taxonomy should utilize and integrate the major dimensions and themes found in available career development theory and research.

Alternative Models

Accordingly, the initial formulation of possible models for the taxonomy was based on the literature review of career development stages (Chapter II). Several alternative models were generated and evaluated to ensure that a variety of approaches to the classification of adult career problems had been considered, thus minimizing the possibility of overlooking potentially useful classification models. Using the strategy, then, of deriving taxonomic models from existing literature and generating and evaluating several alternative models in accordance with the proposed criteria, it was felt that the taxonomy selected for diagnostic purposes would represent the best approach currently available to the objective of classifying adult career problems.

In generating alternative taxonomic models, it became apparent that the existing state of knowledge in career development was insufficient to develop many of the proposed models. Where this was the case, further development of the particular model became impractical. The literature was, however, adequate to suggest the development of four alternative models for diagnostic purposes. Following the formulation of each model, it was evaluated and compared to other models in accordance with the seven criteria presented above. Based on this comparative evaluation, the taxonomy proposed herein was selected.

The first model developed was a stage-by-stage diagnostic system where each task of each stage was converted to a major diagnostic category by expressing each task as a problem. For example, in the preparation stage, one category would be "does not assess personal attributes and the world of work in anticipation of work entry/reentry" or, for the establishment stage, "is unable to explore career plans in terms of personal goals and advancement opportunities." The intent of this model was to preserve the uniqueness of each stage. The stage-by-stage model resulted in seventeen major diagnostic categories, i.e., the sum total of diagnostic categories by tasks for the four stages. This model was rejected since it resulted in problem redundancy and the repetition of diagnostic categories across stages. This reduced its utility, violated parsimony, and created overlapping categories. For example, although the circumstances of a career decision task may be different in the preparation stage than in the establishment stage, diagnostically the problems associated with career decision making are basically similar across stages, e.g., insufficient information, conflicts with significant others, and procrastination.

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A second model proposed was based on problems presented by clients, e.g., "I am having difficulty coping with my boss," "I can't decide what I want to do," "I'm not sure if I should retire now, or wait until later." This model was rejected because of the difficulties of categorizing and summarizing the potentially infinite variety of client problem statements and because of the large number of diagnostic categories that would be required.

A third model utilized diagnostic categories resulting from the cross-classification of career development tasks and causative factors or antecedents contributing to the development of problems. Table 2 illustrates the structure of this model, showing how problems could be classified according to one of four major categories of career development tasks and, within a task category, according to one of eight major categories of antecedents such as personality, development, abilities/skills, etc. Table 3 shows how a variety of problems in completing one of these four tasks, that of career decision making, would be classified using this model. Complete development of this model would require similar specifications of problems by antecedent factors for each of the other three major career development tasks.

Although the task-antecedent interaction model was the most comprehensive in terms of diagnostic differentiation, it posed several major taxonomic problems and was, therefore, rejected. As illustrated in Tables 2 and 3, the model required too many diagnostic categories to satisfy the criterion of parsimony; the minimum of thirty-two diagnostic categories required would be cumbersome and unwieldy for the user, thus reducing the utility of the taxonomy. In addition, the use of antecedents proved problematic in that it was frequently difficult both to differentiate among antecedents due to their overlapping behaviors, e.g., personality versus developmental, and to identify the "true" antecedents in chains of cause and effect relationships where one antecedent may be a symptom or effect of another antecedent. Problems in differentiating and isolating antecedents are a recognized weakness of any diagnostic system and have no easy solution; most existing systems have used a compromise solution involving the postulation of the most logical or evident antecedent suggested by the available body of relevant knowledge.

Finally, a fourth model was developed which incorporated the important concepts of antecedents, presenting problems, and career development stages from the three other models considered, but which minimized diagnostic redundancy and unwieldiness. This model, which classifies problems in terms of the four major tasks common across career development stages, appears to satisfy criteria related to applicability across diverse adult populations and relevance to and utility for diagnosis and treatment, theory-building, and research. Also, this model appears to be superior to the other three models considered in the parsimony and comprehensiveness of its approach to the classification of adult career problems.

The Taxonomy

The taxonomy is based on an analysis of the career development tasks specified in the four stages of career development over the adult life span which were reviewed in the previous chapter. The four task themes that were derived from this analysis are decision making, implementing plans, institutional and organizational performance, and organizational/institutional adaptation. Each theme represents a major task to be mastered for successful career development. A career development problem arises when an individual experiences difficulty in coping with a career development task, when a task is only partially mastered, or when a task is not even attempted. The taxonomy has been constructed to reflect the problems associated with achieving each of the four major tasks. Consequently, the taxonomy consists of four major problem categories: (1) problems in career decision making, (2) problems in implementing career plans, (3) problems in organizational/institutional performance, and (4) problems in organizational/institutional adaptation.

Table 2

The Generation of Problems in Coping with Career Development Tasks through the Interaction of Career Development Tasks and Antecedents

	Career Development Tasks			
Antecedents	Decision Making	Implementing Plans	Performance	Organizational/ Institutional Adaptation
Personality	Problems[1]			
Developmental				
Ability/Skills/Knowledge				
Interpersonal				
Organizational/Institutional				
Social/Cultural				
Economic				
Multiple Antecedents				

[1] Problems may not be appropriate for each cell; they will vary by task.

Table 3

The Generation of Problems through the Interaction of Career Development Tasks and Antecedents Using Decision-Making as an Example

ANTECEDENT	DECISION-MAKING TASK PROBLEMS
Personality	1. Pervasive indecisiveness (choice anxiety) 2. Need for structure 3. Lack of self-confidence 4. Fear of failure/success 5. Excessive dependence
Developmental	1. Premature attempt at task 2. Poor reality orientation 3. Generalized immaturity 4. Unresolved identity issues
Ability/Skills/ Knowledge	1. Poor decision-making skills 2. Inadequate use of resources 3. Multipotentiality 4. Poor cognitive skills 5. Lack of basic information
Interpersonal	1. Overt interference from significant others 2. Perceived conflict with significant others 3. Lack of support from significant others
Organizational/ Institutional	1. Lack of structural support 2. Perceived conflict with established policies 3. Structural interference 4. Authoritative environment
Social/Cultural	1. Perceived conflict with social/cultural norms 2. Role conflicts/discrimination (age, sex, etc.) 3. Pressure for premature closure 4. Restricted choice range 5. Lack of societal support
Economic	1. Economic uncertainty 2. Lack of economic resources
Multiple Antecedents	

Each major problem category is further divided into problem subcategories, i.e., more specific types of problems which can be differentiated on the basis of a specific career developmental task, having a *common* manifestation, or stemming from *common* etiological factors. Further, within each problem subcategory, problem areas are further delineated with reference to distinguishing causal factors. Examples of client problems representative of each particular causal factor are presented to facilitate understanding of the types of problems that could be appropriately classified under a given problem subcategory.

Several points concerning the taxonomy should be made. First, while the four major problem categories utilized appeared to minimize overlap across categories, complete independence of problem categories was neither possible nor desirable to achieve. Thus, it may be found that problems classified within one problem category may be related to or have implications for problems classified under other categories. Problems in one life or career domain rarely occur in isolation from or without affecting other aspects of life or career, but the designation of a primary problem category will facilitate diagnosis, treatment, and assessment of the impact of the primary problem area upon other aspects of adjustment.

It should be noted also that clients may have more than one type of problem at any given time and that each problem may stem from different causal factors. For example, a person's job performance may be inadequate due to skill deficits, and at the same time, he or she may manifest job adjustment problems due to hostile coworkers.

A further point concerning the proposed taxonomy is that the ordering of problem categories, subcategories, and causal factors within subcategories is somewhat arbitrary and does not imply that one developmental level or sequence is more important than another.

Each of the four major problem categories describes problems that may occur at any age or stage in the career development process. For example, the retirement stage is viewed as one stage of the career development process; thus, problems in career decision making or in implementing career plans may occur for individuals nearing that stage as well as for individuals at the beginning or midpoint of their careers. In other words, categories of problems in career planning and adjustment are viewed as cutting across career development stages and reflect major categories of career development tasks central to all four developmental stages.

In using the taxonomy it should be noted that it is intended to provide a system for the meaningful *classification* of client problems rather than a *list* of all potential problems. Thus, no attempt was made to refer to every problem that might occur but, rather, to provide a means by which the range of client problems may be classified. It is suggested, therefore, that client problems should first be classified by problem category and then by problem subcategory. Once the latter has been designated, the range of possible causal factors provided can assist the counselor in formulating alternate diagnostic hypotheses. After determining the salient causal factor(s), appropriate treatment strategies may be formulated and implemented.

Finally, the phrase "organizational/institutional" is utilized throughout the taxonomy to refer to the environment in which the individual is experiencing career adjustment problems. The term "organizational" refers to the setting in which the individual is employed, while the term "institutional" refers to an educational or training setting. Thus, career adjustment problems are viewed as occurring both in the actual work environment and in the environments in which the individual prepares for a career.

The following presentation of the taxonomy begins with an outline of the four problem categories and the subcategories contained within each category. Following the outline a detailed description of problem categories, subcategories, and causal factors is presented.

DIAGNOSTIC TAXONOMY OUTLINE

Problem Categories and Subcategories

1.0 Problems in Career Decision Making

    1.1 Problems in Career Decision Making: Getting Started

    1.2 Problems in Career Decision Making: Information Gathering

    1.3 Problems in Career Decision Making: Generating, Evaluating, and Selecting Alternatives

    1.4 Problems in Career Decision Making: Formulating Plans for Implementing Decisions

2.0 Problems in Implementing Career Plans

    2.1 Problems in Implementing Career Plans: Characteristics of the Individual

    2.2 Problems in Implementing Career Plans: Characteristics External to the Individual

3.0 Problems in Organizational/Institutional Performance

    3.1 Problems in Performance: Deficiencies in Skills, Abilities, and Knowledge

    3.2 Problems in Performance: Personal Factors

    3.3 Problems in Performance: Conditions of the Organizational/Institutional Environment

4.0 Problems in Organizational/Institutional Adaptation

    4.1 Problems in Organizational/Institutional Adaptation: Initial Entry

    4.2 Problems in Organizational/Institutional Adaptation: Changes Over Time

    4.3 Problems in Organizational/Institutional Adaptation: Interpersonal Relationships

DIAGNOSTIC TAXONOMY

1.0 Problems in Career Decision Making

This category includes problems which interfere with or retard satisfactory initiation and completion of the career decision-making process. For purposes of this taxonomy, the decision-making process is viewed as consisting of the following four phases:

(1) Getting started, i.e., awareness of the need for a decision and the willingness to expend the time and effort necessary to know and complete the process

(2) Information gathering

(3) Generating, evaluating, and selecting alternatives

(4) Formulating plans for implementing decisions

The process may be viewed as completed when a satisfactory decision and plans to implement that decision have been made. Problems with implementing plans (decisions) are not part of this category and are classified elsewhere.

Problems may be evident in any one or more of these phases. Career decision-making problems can occur at all stages of career development and are not confined to initial entry into the labor force. Hence, problems might be associated with labor force reentry, mid-life career change, and retirement.

The following subcategories 1.1 through 1.4 describe specific problems corresponding to the four phases of the decision-making process.

1.1 *Problems in Career Decision Making: Getting Started*

This subcategory includes problems which arise due to an individual's general orientation toward the decision-making process. This orientation determines whether the steps in decision making are undertaken as well as the quality of the steps that are taken. Problems usually involve some degree of avoidance or lack of awareness and/or knowledge of the decision-making process.

More specifically, this subcategory could include the following types of problems:

(1) Lack of awareness of the need for a decision

Example: The high school senior who feels life will continue as it is and he/she can just move along with the crowd

Example: The employee whose company is reorganizing and does not recognize that he/she will have to make a position-change decision

(2) Lack of knowledge of the decision-making process

Example: The person who would like to make a career change, but does not know how to get started

Example: The person who is confused as to the best sequence of steps to make a decision

(3) Awareness of the need to make a decision, but avoidance of assuming personal responsibility for decision making

Example: The student who keeps postponing appointments with the guidance counselor

Example: The person who asks someone else to make the decision

1.2 *Problems in Career Decision Making: Information Gathering*

This subcategory includes problems in which the information essential to career decision making is lacking or interfering with the completion of the decision-making process. Career decision-making information encompasses information about the person (e.g., abilities, interests, and values) as well as the world of work (e.g., training programs, job opportunities, organizational settings, and retirement programs). This subcategory could include the following types of problems:

(1) Inadequate, contradictory, and/or insufficient information

Example: The preretiree who cannot obtain accurate information about retirement housing

Example: The job candidate who has received conflicting reports about the stability of the organization under consideration

Example: The rural youth who has limited access to career information

(2) Information overload, i.e., excessive information which confuses the decision maker

Example: The career explorer who has received an overabundance of career materials and is having difficulty determining the personal relevance of each

Example: The person who feels a compulsive need to collect more information than is necessary

(3) Lack of knowledge as to how to gather information, i.e., where to obtain information, how to organize and to evaluate it

Example: Persons who are unaware of existing sources and procedures for obtaining information

(4) Unwillingness to accept the validity of the information because it does not agree with the person's self-concept

Example: The rejected pre-med student who denies the validity of the medical school admission's tests

Example: The aspiring truck driver who feels he/she is in better health than indicated by the qualifying physical examination

1.3 *Problems in Career Decision Making: Generating, Evaluating, and Selecting Alternatives*

This subcategory includes problems in which the process of generating, evaluating, and selecting career alternatives is impeded and/or results in unsatisfactory or inappropriate decisions. Problems are classified here when an individual has recognized the need to decide and has collected information but is stymied in the process of deciding among alternatives. Problems in this subcategory could include the following:

(1) Difficulty deciding due to multiple career options, i.e., too many equally attractive career choices

Example: The multipotential person who would probably do well in any number of careers

(2) Failure to generate sufficient career options due to personal limitations such as health, resources, ability, and education

Example: The unskilled, unemployed fifty-five-year-old with a sixth-grade education

Example: The mentally retarded youth

(3) The inability to decide due to the thwarting effects of anxiety such as fear of failure in attempting to fulfill the choice, fear of social disapproval, and/or fear of commitment to a course of action

Example: The employee who procrastinates accepting a supervisory position for fear of peer disapproval

Example: The student who purposively prolongs his/her education to avoid public commitment to an occupation

(4) Unrealistic choice, i.e., aspiring either too low or too high, based upon criteria such as aptitudes, interests, values, resources, and personal circumstances

Example: The person who is determined to become a plumber despite low aptitude test scores required for this occupation

Example: The person who underestimates his/her capabilities and accepts a menial job

(5) Interfering personal constraints which impede a choice such as interpersonal influences and conflicts, situational circumstances, resources, and health

Example: The mid-life career changer who needs to reconstruct family circumstances before considering a career decision

Example: The preretiree who has to delay making a retirement decision pending the improved health status of a dependent

(6) The inability to evaluate alternatives due to lack of knowledge of the evaluation criteria —the criteria could include values, interests, aptitudes, skills, resources, health, age, and personal circumstances. The person knows the general process of career decision making, has collected appropriate information, generated alternatives, but is now having difficulty formulating and applying criteria for assessing alternatives.

Example: The person who is having difficulty prioritizing work values, e.g., security vs. autonomy

Example: The person who is having difficulty assessing the implications of geographic relocation related to a job change

1.4 *Problems in Career Decision Making: Formulating Plans for Implementing Decisions*

This subcategory includes problems relating to formulating plans for implementing a career decision after a decision has been made. This subcategory does not include problems associated with the actual implementation of a decision, which are classified elsewhere. The formulation of plans consists primarily of cognitive activities that assist the person in thinking through how a decision will be implemented. In some instances, a person will have overlooked a key factor in a decision which surfaces during formulating plans, e.g., the increased cost of housing in another city, which might necessitate reevaluating the decision to relocate.

Problems in formulating plans typically emanate from the following sources:

(1) Lack of knowledge of the necessary steps to formulate a plan

Example: The person who wants to become a barber, but does not know the procedures for obtaining training

Example: The person who would like to work as a grocery clerk, but does not know how to apply

(2) Inability to utilize a future time perspective in planning

Example: The breadwinner who is unable to foresee changing family responsibilities as they might interact with a career decision

Example: The aspiring executive who is having difficulty projecting how long he/she should stay in the present job before attempting a move

(3) Unwillingness and/or inability to acquire the necessary information to formulate a plan

Example: The student who does not want to exert the effort to acquire housing information

Example: The mechanic who wants to establish his/her own shop but delays exploring loan information

2.0 Problems in Implementing Career Plans

This category includes problems encountered in the process of implementing one's career plans. Individuals in this category are assumed to have made a satisfactory career decision and to have outlined a plan designed to implement that decision. Thus, the next critical step in their career development involves the successful implementation of the decision and the attainment of the desired career objectives.

Problems in implementation are in evidence when the individual's goals are being thwarted and/or when he/she cannot or does not orchestrate planning elements. Problems of this type typically occur due to two subcategories of factors: (1) characteristics of the individual, e.g., lack of motivation to complete the necessary steps in implementation, and (2) characteristics external to the individual, e.g., lack of available positions in the individual's chosen career field. The following subcategories 2.1 and 2.2 describe these two types of problems of implementation.

2.1 *Problems in Implementing Career Plans: Characteristics of the Individual*

This subcategory includes problems in implementation due to characteristics of the individual. These problems may arise from the following:

(1) Failure of the individual to undertake the steps necessary to implement his/her plan

Example: The individual who postpones beginning a job search through lack of motivation or fear of rejection

Example: The individual who fails to implement plans for retirement because he or she wishes to deny its necessity

Example: The student who fails to apply for loan assistance to continue his/her education

(2) Failure or inability to successfully complete the steps necessary for goal attainment

Example: The individual who is unable to complete necessary educational or training programs

Example: The individual whose lack of persistence, thoroughness, or realism in a job search results in failure to find a job

(3) Adverse changes in the individual's physical or emotional condition

Example: The young athlete whose plans are disrupted by a physical disability

2.2 *Problems in Implementing Career Plans: Characteristics External to the Individual*

A second major subcategory of problems in implementation describes external factors or circumstances which interfere with the individual's progress in implementing his or her career plans. Problems may arise due to the following:

(1) Unfavorable economic, social, and cultural conditions

Example: The individual whose attempts to find a job are complicated by an economic recession

Example: The preretiree who finds that inflation has prevented his or her accumulation of sufficient financial resources upon which to retire

Example: The prospective elementary school teacher who realizes that the decreasing birth rate has reduced the demand for persons in that profession

(2) Unfavorable conditions in the organization or institution central to the implementation of one's plans

Example: The individual who is discriminated against in hiring and/or promotion

Example: The individual who loses his or her job when the employing organization goes out of business

(3) Adverse conditions of or changes in the individual's family situation

Example: The individual whose career plans are disrupted by the death or serious illness of a family member or significant other

Example: The individual who must, perhaps unexpectedly, expend time and money to care for a child

Example: The partners in a dual-career relationship who must compromise their mobility if they are to stay together

3.0 Problems in Organizational/Institutional Performance

This category includes problems in which the individual is having difficulty achieving or maintaining an acceptable level of performance based upon either personal and/or organizational/ institutional standards within an educational or work setting. The person could be satisfying work standards for the organization/institution, but falling short of his/her personal standards, or the reverse, e.g., the student who is getting passing grades, but aspires for much higher grades, or the mechanic who feels he/she is doing good work, but is not satisfying the boss. Performance problems can be manifested in a variety of ways such as poor quality or quantity of work output, absenteeism, interpersonal conflicts, sloppy work habits, tension, dishonesty, and accidents. Performance problems can be classified under three subcategories: (1) deficits in skills, abilities, and/or knowledge; (2) personal factors, e.g., poor emotional or physical health; and (3) conditions of the organizational/ institutional environment, e.g., inadequate support facilities, supplies, and/or resources. The following subcategories 3.1 through 3.3 provide further elaboration of performance problems.

3.1 *Problems in Performance: Deficiencies in Skills, Abilities, and Knowledge*

This subcategory includes problems arising from deficits in the skills, abilities, and/or knowledge essential for satisfactory performance. The deficiency may exist due to the following:

(1) Insufficient skills, abilities, and/or knowledge upon position entry, i.e., underqualified to perform satisfactorily

Example: The person who was hired as a bank teller, through personal contacts, but lacks the mathematical proficiency to perform satisfactorily

Example: The trainee who was given conditional admission status to a training program pending remedial correction of admission requirements such as reading or math

(2) The deterioration of skills, abilities, and/or knowledge over time while in the position due to temporary assignment to another position, leave, and/or lack of continual practice of the skill

Example: The construction worker who was assigned to the front office for an extended period of time and returns to his/her former assignment

Example: The welder who returns from a lengthy leave and has difficulty reestablishing his/her work rate quota

Example: The stenographer who loses his/her shorthand skills due to insufficient opportunities to take dictation

(3) The failure to modify or update skills, abilities, and/or knowledge to stay abreast of job changes, i.e., job obsolescence due to new technology, tools, and knowledge

Example: The accountant who has not learned computer technology

Example: The nurse who has not kept pace with pharmaceutical changes

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3.2 *Problems in Performance: Personal Factors*

This subcategory includes performance problems resulting from individual characteristics other than skills, abilities, and knowledge. Personal factors pertain primarily to the individual's values, attitudes, motivation, personality, health, and personal circumstances as they relate to satisfactory performance. The individual may possess the skills, abilities, and knowledge to perform satisfactorily but is not doing so due to interfering personal factors. Problems may arise due to the following:

(1) Personality characteristics discrepant with the job, e.g., values, interests, and work habits

Example: The overeducated, underemployed typist who prefers a more challenging position

Example: The assembly line worker who needs a job, but hates the work and would rather be in an outdoor occupation

(2) Debilitating physical and/or emotional disorders

Example: The dock worker who is suffering from a bad back

Example: The ambulatory psychotic who has trouble concentrating on the work

(3) Adverse off-the-job personal circumstances and/or stressors, e.g., family pressures, financial problems, and personal conflicts

Example: The employee whose father is being treated for a terminal illness

Example: The employee who has overextended his/her financial obligations

(4) The occurrence of interpersonal conflicts on the job which are specific to performance requirements, e.g., getting along with the boss, coworkers, customers, and clients

Example: The crew chief who unduly harrasses his/her subordinates

Example: The salesperson who is abrasive to customers

3.3 *Problems in Performance: Conditions of the Organizational/Institutional Environment*

This subcategory includes problems arising from conditions within the organizational/institutional environment which interfere with or inhibit the achievement of satisfactory performance. Interfering conditions typically stem from at least four aspects of the environment:

(1) Ambiguous or inappropriate job requirements, e.g., lack of clarity of assignments, work overload, and conflicting assignments

Example: The employee who has been given contradictory instructions from different supervisors

(2) Deficiencies in the operational structure of the organization/institution

Example: Employees who are unable to achieve their production quotas due to inefficient management coordination among work units

Example: Employees whose morale is low due to frequent conflicts among top management

(3) Inadequate support facilities, supplies, and resources, e.g., insufficient lighting, ventilation, tools, support personnel, and materials

Example: The television cameraman who is unable to provide a quality picture due to inferior equipment

Example: The appliance repairperson who is frequently behind schedule due to delays in obtaining parts

(4) Insufficient reward system, e.g., compensation, fringe benefits, status, recognition, and opportunities for advancement

Example: Employees who are rarely given credit for extra effort

Example: Employees who perceive no opportunities for advancement

4.0 Problems in Organizational/Institutional Adaptation

This category includes problems in which the individual is having difficulties adjusting to and fitting into the organizational/institutional environment. Problems classified within this category involve difficulties in adjusting to organizational policies, regulations, rules, decorum, administrative structure, and to other members of the organization. The category excludes problems in performance and, rather, emphasizes the degree of adaptation of the individual to the total organizational environment. Problems in this category can be classified using three subcategories, i.e., (1) initial entry, (2) changes over time, and (3) interpersonal relationships. The following subcategories 4.1 to 4.3 describe these three types of problems in organizational/institutional adaptation.

4.1 *Problems in Organizational/Institutional Adaptation: Initial Entry*

This subcategory includes adjustment problems occurring during the period following initial entry to an institutional/organizational environment. These problems include the following:

(1) Lack of knowledge of organizational rules and procedures

Example: The individual who dresses inappropriately due to lack of knowledge of norms regarding acceptable attire

(2) Failure to accept or adhere to organizational rules and procedures

Example: The individual who fails to observe norms regarding interactions with subordinates

Example: The individual who refuses to follow the directions of superiors

(3) Inability to assimilate large quantities of new information, i.e., information overload

Example: The individual who is overwhelmed by the amount he or she must learn quickly and, thus, becomes anxious and less effective

(4) Discomfort in a new geographic location

Example: The individual whose lack of familiarity with and comfort in a new city hinders his or her job satisfaction

(5) Discrepancies between the individual's expectations and the realities of the institutional/organizational environment

Example: The college student who anticipated a busy social life but has found that other students are more interested in studying at night

Example: The person who finds that his or her job duties are different from what he/she had expected

4.2 *Problems in Organizational/Institutional Adaptation: Changes Over Time*

This subcategory includes problems in adjustment which occur after the individual has been with the organization long enough to have achieved an initial adjustment to the institution/organization. Adjustment problems in later stages of the individual's tenure with the institution/organization may be viewed as disruptions in the state of individual-environment congruence or balance that had been previously achieved. Such disruptions may occur for the following reasons:

(1) Changes over the life span in one's attitudes, values, life style, career plans, or commitment to the organization which lead to incongruence between the individual and the environment

Example: The individual whose changing value system is no longer compatible with the values of the organization

Example: The individual for whom the stresses of life in a large city or of striving to reach the top of an organization are no longer tolerable

Example: The individual who, over time, has become bored with tasks and responsibilities which once provided personal satisfaction

(2) Changes in the organizational/institutional environment which lead to incongruence between the individual and the environment, e.g., physical and administrative structure, policies, and procedures

Example: The individual who finds that working conditions under new company management are intolerable

Example: The individual who is dissatisfied with changes in promotional policies

Example: The junior chemist who feels professionally isolated when his/her mentor is transferred to another division

4.3 *Problems in Organizational/Institutional Adaptation: Interpersonal Relationships*

This subcategory includes problems related to the individual's attempts to develop and maintain satisfactory relationships with persons sharing the same organizational/institutional environment. Relationships creating problems can be either with people to whom the individual must relate on a formal basis, e.g., supervisors and supervisees, or those with whom informal relationships are formed, e.g., others working in the same office and students in the same dormitory. Problems in interpersonal relationships may be due to the following:

(1) Interpersonal conflicts arising from differences of opinion, style, values, mannerisms, etc.

Example: The individual who is irritated by a coworker who whistles or talks to himself/herself

Example: The individual who is continually arguing with a coworker who has differing political views

(2) The occurrence of verbal or physical abuse or sexual harrassment

Example: The secretary who is continually bothered with sexual innuendos and advances from his/her boss

Example: The meek employee who is always a victim of the company bully

Chapter IV

THE DIAGNOSTIC ASSESSMENT OF CAREER DEVELOPMENT PROBLEMS

Although a diagnostic taxonomy of career development problems is helpful in identifying the range of possible concerns and issues that interfere with satisfactory career adjustment, it does not provide procedures for a diagnostic analysis of a given problem. In other words, it is not enough to simply identify a problem such as organizational adaptation. Effective diagnosis requires the additional step of a more in-depth analysis of the problem which leads to a treatment plan. Although it is beyond the scope of this project to provide an exhaustive review of specific diagnostic techniques, it might be beneficial to the reader to suggest some diagnostic guidelines. One framework for the diagnostic assessment of problems that might be applied here is a modification of the assessment of behavior developed by Osipow and Walsh (1970) in their book entitled *Strategies in Counseling for Behavior Change.*

These authors propose an assessment system with four elements. The elements include *first,* problem identification, *second,* problem analysis, *third,* problem evaluation, and *fourth,* treatment planning. The four elements represent a systematic progression from diagnosis (the first three elements) to developing a treatment plan (the fourth element). The emphasis for this chapter will be on the first three elements, diagnosis.

Several other considerations should be kept in mind in using this diagnostic system. *First,* the intent of diagnostic assessment is not to label or pigeonhole a client, but to provide a functional diagnostic assessment of the client's problem. A functional assessment is a highly individualized comprehensive examination of the client's problem so that appropriate treatment can be implemented. It considers antecedents to the problem, situational factors and circumstances, and events which may be sustaining the problem. *Second,* the length of time and the amount of information required for a diagnostic assessment varies by client and the complexity of the problem. In some cases, the assessment process may be brief, perhaps as short as several interviews, whereas in others it may be much longer. *Third,* a number of techniques can be used to obtain assessment information. The three most popular techniques are interview, testing, and observation. The use and blend of these will vary depending upon the nature of the problem, the type of information needed, and the economy of the assessment process. For example, in assessing work values, interests, and aptitudes, it probably would be more economical in terms of time to obtain this data through testing which is followed by test interpretation and discussion. Finally, the suggested assessment system is outlined as guidelines and should not be perceived as a diagnostic recipe; much of its effectiveness will rest with the skills of the individual counselor.

The remainder of this chapter will provide an elaboration of these elements, discuss diagnostic techniques, and conclude with case illustrations of the assessment system.

Problem Identification

The initial diagnostic task is to assist the client to clearly define the problem. Typically the client's statement of the problem is vague and often expressed by symptoms. The client might state he/she feels tense at work, has difficulty concentrating, is not advancing in the job, feels depressed, and/or is confused about the future. The more concretely the complaints can be specified, the more quickly the counselor and the client can focus on specific problems and set general goals for counseling. For example, the client who reports being confused at work might really be saying, "It's not clear as to what is expected of me and how I should behave." It's also important to keep in mind that the client has been dwelling on the problem for some time, which can result in undue magnification of the problem and loss of objectivity.

Although there is a need for a quick identification of the problem so that the client can feel more at ease, the counselor should avoid premature closure since this could result in misdirection. For example, the counselor who accepts at face value the client's diagnosis that the problem of job dissatisfaction is work overload when the real problem is intrinsic disinterest in the job could inappropriately focus on the wrong problem.

It is at this point that the diagnostic taxonomy can be useful in more specifically defining the problem. The taxonomy suggests a range of possible problems within a major problem category. A scan of the range of problems relevant to the client's concern can provide clues for where to focus. If it is a decision-making problem, e.g., does the client lack information? Is anxiety interfering with the choice process? Are there situational circumstances which impede a decision? This kind of preliminary exploration of the problem sets the stage for a more in-depth assessment of the problem. It also communicates to the client the importance of diagnosis as a necessary step toward treating the problem effectively.

Problem Analysis

The purpose of this element of the diagnostic assessment process is to achieve an in-depth analysis of the problem by surveying severity, situational factors, antecedents, and maintainers of the problem. This kind of information is useful in developing a more complete picture of the total functioning of the client, e.g., other problems that may be contributing, delimiting personal circumstances, and self-defeating behaviors.

A number of questions might be posed to assess the severity of the problem: How intense is the problem? What has the client done to cope with it? How long has it been occurring (chronicity)? How pervasive is it, i.e., is it pretty much confined to a specific situation, or does it extend into other areas? For example, an employee's overall job functioning might be satisfactory except for trying to get along with one coworker.

In examining the situational factors in which the problem is occurring, it is advisable to consider such aspects as the duration of the problem, i.e., is it a transient problem (geographic relocation adjustment, temporary reassignment, etc.)? Can the situation be manipulated or modified to help the client? To what degree does the problem situation have consequences for other aspects of the client's life? How much control does the client have over the problem situation? Does the client see viable options? What resources and support systems are available to the client, e.g., friends, colleagues, family, temporary leave, funds, career planning services, and skills?

Another dimension of assessing the problem is to look for antecedents and maintainers of the problem, i.e., what are the causative factors contributing to the development of the problem and what factors are maintaining the problem? In effect, the counselor is asking the question, What stream of behaviors and events might have produced the client's problem and what behaviors and events are continuing to maintain the problem? An analysis of antecedents and maintainers is part of the total situational survey of the problem, and it is not intended that these are distinct assessments.

Several examples might help to illustrate the value of analyzing antecedents and maintainers. If a client complains of the inability to make friends at work, the counselor might explore the client's past and current social response style. For example, the client may have learned to be cautious in initial social contacts for fear of disapproval and rejection, thereby inhibiting those behaviors which might lead to making friends. Another example is that of job interviewing behavior. Let's suppose a client complains of frequent job rejections which are specifically tied to the interview. In other words, all other aspects of the job application are satisfactory, e.g., test scores and references, but the interview is always a failure. An analysis of the antecedents to this problem revealed several significant findings. Both of these had to do with his appearance during the interview. First, he had acquired some mannerisms as a youth which conveyed negative impressions (slouching posture, chewing gum, and fidgeting). Second, the constant buildup of rejections and anticipated rejections had made him so tense that he became disorganized in his thoughts during the interview, leaving the impression that he was absent-minded and irresponsible. These behaviors also presented a cyclic effect in that the more tense he became, the more he engaged in them. This in turn was self-defeating as rejections continued to elicit more tension.

Problem Evaluation and Treatment Planning

The final two elements of the assessment process are intended to accomplish two objectives: (1) formulate an overall diagnostic evaluation of the problem and (2) develop (or propose) a treatment plan to alleviate the problem. The treatment plan should be a natural outgrowth of the diagnostic evaluation, but the potential adequacy of the treatment plan will be partly limited by the accuracy with which the diagnostic data has been collected, analyzed, and appraised. A brief illustration of this was provided earlier where it was shown that an erroneous (premature) diagnosis resulted in inappropriate treatment.

To guard against diagnostic errors, it is at this point that the counselor should carefully review the cumulative diagnostic data representing all relevant sources, e.g., interview, tests, and observation to formulate diagnostic impressions or hypotheses. Although the diagnostic hypotheses serve to guide the treatment plan, they can be modified as new data is acquired; often this may occur during implementation of the treatment plan. Let's assume it has been diagnostically determined that a returning student is confused as to how to implement a reentry to school plan, and a treatment plan is adopted to assist the student. The counselor also suspects (a tentative hypothesis) that the student may encounter anxiety which interferes with academic performance but does not feel that this should be suggested at this time to avoid initially compounding the student's apprehension about reentry. Shortly thereafter, the student returns expressing test anxiety upon exposure to the first midterm examination. Consequently, additional diagnostic analysis is conducted and appropriate treatment is implemented to correct the test anxiety. This can serve to illustrate the continual interplay between reshaping diagnostic evaluations as treatment plans are implemented and tested. In most instances feedback from the client about the success of the plan provides important information for subsequent reformulation of the diagnosis and the plan.

Although it is beyond the scope of the present project to review treatment strategies since the primary objective is on diagnosis, it might be helpful to alert the reader to sources which describe differential treatment approaches as they pertain to varied adult career development problems. To the best of the author's knowledge, there is no single source which deals exclusively with the range of career adjustment problems identified in the taxonomy. However, each of the following sources contain some treatment strategies for career development problems.

Bolles, R.N. *The Three Boxes of Life and How to Get Out of Them.* Berkeley, CA: Ten Speed Press, 1978.

Bolles, R.N. *What Color is Your Parachute?* Berkeley, CA: Ten Speed Press, 1978.

Campbell, R.E.; Rodebaugh, H.D.; and Shaltry, P.E. *Building Comprehensive Career Guidance Programs for Secondary Schools: A Handbook of Programs, Practices, and Models.* Columbus, OH: The National Center for Research in Vocational Education, The Ohio State University, 1977.

Crites, J.O. *Career Counseling.* Manuscript in preparation.

Ganikos, M.L., ed. *Counseling the Aged.* Washington, DC: The American Personnel and Guidance Association, 1979.

Kaufman, H.G., ed. *Career Management: A Guide to Combating Obsolescence.* New York: IEEE Press, 1975.

Krumboltz, J.D., and Thorensen, C.E., eds. *Counseling Methods.* New York: Holt, Rinehart, and Winston, 1976.

Robbins, P.I. *Successful Midlife Career Change.* New York: AMACOM, 1978.

Schlossberg, N.K.; Troll, L.E.; and Leibowitz, Z. *Perspectives on Counseling Adults: Issues and Skills.* Monterey, CA: Brooks/Cole, 1978.

Weinrach, S.G. *Career Counseling.* New York: McGraw-Hill, 1979.

Case Illustrations

The following two cases, Carl and Carol, are representative problems of the diagnostic taxonomy and illustrate the diagnostic assessment process. Additionally, the cases were selected to show the inevitable overlap which frequently occurs between career and personal problems. As was indicated earlier in Chapter III, problems in one life or career domain rarely occur in isolation from or without affecting other aspects of life or career. Both cases provide comprehensive illustrations of these complex life-career interactions. Carl represents a problem in which a personal tragedy negatively affected his job performance and general life functioning. Carl's problem would be classified as 3.2 *Problems in Performance: Personal Factors* (3) Adverse off-the-job personal circumstances and/or stressors. Carol illustrates a problem in determining her central values and attitudes toward setting vocational goals and future life style. Carol's problem would be classified as 1.3 *Problems in Career Decision Making: Generating, Evaluating, and Selecting Alternatives* (6) Evaluation criteria-values.

CARL*

This case concerns a young man in his early twenties, Carl D., who was referred to the counselor, working in a community mental hygiene clinic, by the family physician. The client had exhibited a prolonged depression of a moderate nature. The depression appears to have been triggered by a severe auto accident suffered six weeks earlier in which his wife was killed. Since then, the client's depression, normal to begin with, seemed to be growing more severe. He had grown increasingly disinterested in his work and social activities, unconcerned about such things as his appearance, his diet, and the maintenance of his everyday affairs. Furthermore, he was not showing signs of terminating these deteriorative behaviors. Prior to the accident Carl had a good vocational and marital adjustment. He and his wife, married about two years, appeared to get along well. Carl was an effective salesman whose income was more than $10,000 a year and rising steadily, and who possessed a great many interpersonal skills. The couple was relatively new to the community, having moved there after their marriage when the young man obtained employment in the area.

The client, driving the car at the time of the accident, ran off the road. He suffered only very minor, superficial injuries while his wife was thrown out of the car and killed. Carl seemed to be preoccupied with blaming himself for his wife's death and appeared to be caught between his sense of relief over his survival and his feeling of guilt over that relief, since his wife did not survive. He had received a good deal of emotional support and, in fact, even more material support from his friends and work associates who tried to help him by distraction through invitations to their houses and by doing some of his work. Despite their efforts, he showed no signs of interest in their attempts, often failing to meet appointments or keep commitments that he made. Increasingly, he arrived at work later in the day; some days he didn't get to his office until nearly noon, and then he left in mid-afternoon. When not at work, most of his time was spent simply sitting in his apartment, vacantly watching TV or just sitting and staring into space, thinking. He went to his physician at the physician's request for a checkup after his release from the hospital. Carl's behavior during the checkup concerned the physician, who observed that Carl's depression was not dissipating as it should. While some normal depression could be expected following a fatal accident, Carl's emotional recovery was not progressing satisfactorily. The physician prescribed medication to alleviate the depression but also felt that some psychological attention and supervision was necessary.

Carl's family, as well as his wife's, lived in a community about one hundred miles away. Neither family appeared to blame Carl for the unfortunate turn of events, though naturally they were extremely distressed themselves. No family members lived close enough to really provide any substantial psychological support for Carl.

Before the accident, Carl had very positive feelings about his work, his effectiveness in its performance, and its importance. During his post-accident depression, however, he began to raise questions about the worth and significance of sales work.

Such was the state of counselor knowledge at the end of a one-hour interview with Carl. On the basis of the information indicated above, a number of observations were made according to the framework of analysis presented earlier.

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*Source: Osipow, S.H., and Walsh, W.B. *Strategies in Counseling for Behavior Change* © 1970, pp. 77-82. Reprinted by permission of the publisher, Prentice-Hall, Inc., Englewood Cliffs, New Jersey.

Clarification of problem behavior. This part of the analysis is designed to specify the troublesome behavior, thus identifying, at least in part, the behavioral objectives to be pursued. On the basis of the preceding description, several problem behaviors were identified. These included the client's increasing tendency to isolate himself from ordinary social intercourse; his lack of attention to normal living functions such as eating, sleeping, and personal grooming; his growing failure to perform his job adequately; his failure to meet social commitments; and his state of low, general activity. These problem behaviors were probably the result of Carl's ruminations over his responsibility for the accident and his guilt feelings over surviving while his wife was mortally injured. It was reasoned that efforts to revise or terminate Carl's depressive ruminations should first take the form of leading him to be more active physically, since physical activity would interfere with the ruminative sequences. This process could begin by getting him to talk more in the interview, which would hopefully make it possible to elicit verbal representations of Carl's poor appetite, inability to sleep, and sloppiness. Statements of intent to change would be reinforced and encouraged until better eating, sleeping, and grooming behaviors resulted. A similar sequence could be followed in connection with Carl's interaction with other people socially and on his job. Thus, a set of behavioral goals to be accomplished was established. The accomplishment of these would indicate when to terminate meeting with Carl as well as judgments about the degree of success of the outcome of the case.

Clarification of the problem situation. The clarification of the problem situation involves the analysis of the stimulus conditions and the identification of significant individuals in the environment who may be contributing to and reinforcing behavioral excesses or deficits that the client exhibits. In Carl's situation, the most prominent environmental antecedent was the automobile accident and the death of his wife. Rumination over these events reinforced the apathetic, depressive behaviors in which Carl engaged to excess. Since the ruminative behavior was disruptive and its origin could be attached to a fairly specific and concrete event, it was reasonable to expect that the intensity and frequency of the behavioral excess would decrease upon the reduction of the psychological impact of the accident either through the passage of time or by the manipulation of Carl's subjective reactions.

The analysis of the educational-work environment. This analysis is designed to describe the responses that the work environment permits the client to engage in. What reinforcing stimuli, both people and events, occur in the environment that are likely to facilitate appropriate client behavior? Similarly, what events in the environment are likely to reinforce what might be considered to be aversive responses? Furthermore, an attempt is made to identify the self-controlling elements that exist within the individual, in the institutions within which he or she operates, or within other individuals with whom he or she interacts in his/her educational or work environment.

In Carl's situation, a number of important reinforcers, both positive and negative in nature, seemed to exist. On the positive side was the support and encouragement of Carl's work associates, his skill in the performance of his job duties before his psychological depression, his satisfaction in the performance of that work and, finally, the fact that when he was actively engaged in his work it required his full attention, thus offering the potential of distracting him from the disruptive thoughts concerning the accident and its results. On the negative side, however, was Carl's currently poor work performance as well as his questions about the significance of the work of a salesman. An additional negative aspect of Carl's work environment was the fact that he found it difficult to interact with people following the accident, a knotty problem since interaction with people is an essential ingredient of saleswork. Finally, Carl's work required him to drive a car, and driving both frightened Carl and reminded him of the accident itself, thus setting off the chain of disruptive thoughts.

The analysis of the family environment. This analysis is concerned with identification of the major influences on the client in his or her family, specifying the responses to the family that are likely to be acceptable to and permitted by the family members, indicating what the hierarchy is of reinforcing and aversive stimuli in that environment, and noting what, if any, self-controlling elements exist in the family environment. Carl's immediate family environment, now changed since his wife is absent, was a disruptive source of stimulation. In addition, the lack of family members in close proximity to aid Carl and provide him with continuing support to accelerate the termination of Carl's depressive reaction was unfortunate.

On the positive side, however, was the fact that Carl and his wife were childless. The lack of children to care for simplified life for Carl, since he did not need to concern himself with such tasks as arranging for the care of youngsters while at work. It also had another positive value in that Carl remained mobile geographically and socially. Mobility enhances the ability to make a new life for oneself, a task faced by Carl. Finally, it should be noted that no overt hostile feelings from members of Carl's wife's family appeared to exist.

The analysis of the interpersonal environment. This analysis concerns itself with peer relationships, sexual relationships, and their associated deficits and excesses, as well as with the indication of what kinds of relationships with others the environment will permit. Furthermore, as in the analyses of the other environments, there is concern with the identification of the positive reinforcing and aversive hierarchies as well as the self-controlling elements in the environment. For Carl, positive factors were his youth, his sociability (before the accident) and his many friends, his sex (males possessing greater social freedom than females), and his general attractiveness and social skill.

On the negative side was the fact that women reminded him of his wife, triggered guilty thoughts, and thus inhibited his heterosexual interactions. In addition, there was the fact that his apartment naturally still included many possessions which reminded him of his wife and their life together; the fact that many of his friends were the mutual friends of both Carl and his wife was still another factor inhibiting Carl's desire to resume social contacts. Not to be ignored was the disruption of his sex life (potentially a positive factor should it motivate him to reestablish sexual-social relationships) and the need to become accustomed to living alone (also a potentially positive factor motivating Carl to reactive social behaviors).

The analysis of thinking responses. This section describes the client's subjective responses and his self-perceptions. The description is based upon inferences drawn mainly from the client's self-report. In this connection, it was known that Carl felt guilt and responsibility for his wife's death. It is also known that Carl began questioning the meaning of his life and whether he should go on in the old style, try to create a new and different life, or just let himself deteriorate. In this regard Carl's questions about his continuing commitment to sales work were important.

The analysis of the biological and physical attributes. In this section the client's health and the potential of his/her environment for entertainment, amusement, and diversion are assessed. Carl's environment appeared to lack suitably distracting events to interrupt the depressive ruminative thought sequences that he engaged in, which contributed to his prolonged depression. Unfortunately for Carl there did not appear to be many significant and positive recreational features in his environment. Carl's general state of health was good, and his former psychological adjustment was satisfactory, both of which augered well for his future adjustment.

Counseling Goals and Strategy

On the basis of the behavioral and environmental analysis, a supportive counseling strategy seemed most appropriate to the counselor. The troublesome behavior seemed to have been elicited by a traumatic situational event. It is likely that the grief reaction following an accident such as Carl's would be expected to be severe. Superimposed on a basically sound personality, however, the reaction should begin to terminate on its own, and the client should show signs of resuming his former life or some modification of his former life. Being psychologically alone was hurting Carl's rebound. Supportive counseling can accelerate the reversal of the deteriorative process, a worthwhile goal since a prolonged grief reaction could lead to corollary problems. One way supportive counseling can help a person like Carl is to engage him or her in a number of overt active responses to the troublesome situation. No new responses were required for Carl to improve. All that was necessary was the elicitation of former behaviors. It becomes clear from the behavioral analysis that the client possesses a wide range of socially effective responses which he was not using. To improve, it was necessary to engage Carl in those responses so that he could use his resources to terminate his reaction to what was certainly a very tragic, but not unique, human situation.

A number of specific behavioral objectives were posited. The first of these was to engage the client in extended verbal interaction in the interview in order to elicit verbal representations of some of Carl's thoughts. The content of the talk was not as crucial as the fact that Carl should be encouraged to talk, although the chances were judged to be great that once Carl began to talk, the verbalization would be affective in nature and would probably deal with the accident and Carl's subjective reactions to it. Following successful elicitation of client verbalization, the counselor attempted to elicit a verbal commitment from Carl indicating that he would try to come to grips with his tragedy. This commitment then led to engaging Carl in several simple and specific behaviors that represented the first steps toward the resumption of a normal and satisfactory life. These behaviors were attending to his grooming by shaving regularly and by brushing his teeth, by awakening on a regular schedule, and, in effect, doing many of the things that he had formerly taken as a matter of course. These simple behaviors then led to more elaborate behaviors indicating movement in the direction of higher level adjustment, such as getting to work on time, beginning to associate with friends, and, in general, picking up the threads of a normal life. The efforts with Carl were thus mainly cognitive. The counselor used a supportive manner to reinforce Carl's engagement in the desired behaviors. The rationale was that for Carl, better overt behaviors would contribute to more desirable subjective behaviors.

At this point, the counselor and Carl discussed the possibility that some features of Carl's former style of life be changed. Carl concluded that he would feel more comfortable in the long run if he made a major change in his life style, but felt that the decision should not be impulsive and decided to put off a major change for at least six months. Carl and his counselor discussed arrangements for further counseling concerning decision making to be held later.

To accomplish all this, the counselor first adopted the role of the concerned, understanding, and sympathetic listener. Along with these behaviors, however, the counselor gently suggested Carl engage in old and formerly effective behaviors. The counselor also verbally reinforced verbal behaviors Carl exhibited indicating reduced apathy and depressive rumination and positive commitment. As these became more numerous, the counselor encouraged Carl to engage in constructive behaviors outside of the interview. The behavioral and environmental analysis in this type of case is useful in leading the counselor to commit him/herself to certain minimal objectives which may be concretely and behaviorally specified. The result of the specification is the reduction of the likelihood the client will become excessively dependent on the counselor; a second result is the reduced likelihood that the client's situation will be seen to be more serious psychologically than it is. This does not deny the possibility that the client could engage in other objectives if he or she should choose to, but it makes those new case objectives clear and vivid to both the client and the counselor.

It is hard to see how Carl's problem could have been approached effectively from a facilitative-affective stance. Such an approach would have reinforced Carl's self-defeating behaviors. At the crucial moment in Carl's life, he needed some outside force to set his effective resources to work again.

CAROL*

Carol was a college sophomore majoring in the Arts and Letters College when she first consulted her counselor at the University Counseling Center. Carol was an attractive young woman, nineteen years old, who came from a well-to-do family living in an urban area about 200 miles away from the campus of Southwestern University. Carol had no strong academic or vocational goals, but she generally saw herself as a strongly social-service-oriented person, one who could comfortably be a teacher or a social worker and feel that she was making a substantial contribution to humanity. At the same time, Carol was oriented toward getting married, having children, and raising a family. In college she dated a great deal, had many friends, and got along well with peers of both sexes. She and her older brother, currently a law student at another university some distance away, had a good relationship.

Carol's presenting problem was vague. She felt mildly depressed, but she could not clearly identify the antecedents of the depression. Her operational description of her mild depression was that she found herself sighing frequently, often felt "blue" (emotionally drained) and frequently found herself thinking a great deal about questions concerning what she would do with her life and what kind of life would be worthwhile to live. Her conversations with friends centered around questions concerning appropriate sexual behavior, whether or not to use drugs such as marijuana, LSD, etc. She found herself considering a great many of the moral questions of the culture in the area of civil rights and relations with authority figures. She found that after these conversations, she felt depressed (i.e., lethargic, with a sense of heaviness in her chest, and unresponsive to stimuli). She had many questions, but few answers: she was not at all sure that she wanted to live the sort of life her parents had led, or continue to be a member of the affluent society. At the same time, she was able to recognize that she enjoyed the material benefits of that society while feeling some mild guilt about accepting them. What she said she hoped to accomplish in counseling was to have an opportunity to talk with someone outside her immediate circle of friends about these concerns and perhaps, as a consequence, work out some acceptable value system and way of life. She felt her friends could not be helpful to her because they were wrestling with the same sort of problems, and many of them took a condemning attitude toward her for admitting that she did enjoy nice clothes, a nice house, cars, travel, etc.

Behavioral Analysis for Counseling

Analysis of the problem behavior. The problem behavior was not clear. The closest the counselor could come to specifying it was in connection with the series of depressive episodes (mentioned earlier) that Carol experienced as well as the series of ruminative thoughts about questions of life values.

Analysis of the problem situation. Carol's problem situation was more than the result of being in college at a particular place and moment in time, although that obviously contributed a great deal to her discomfort. On a subjective level, Carol seemed to be experiencing a developmental problem that many young women of her age in our culture at this time are experiencing. This problem centered about the identification of a set of values to live by. Consequently, her counselor could not seriously consider any situational manipulation or superficial change of education program to help Carol since the problem would remain with her despite changes in her life's setting in the immediate future.

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*Source: Osipow, S.H., and Walsh, W.B. *Strategies in Counseling for Behavior Change* © 1970, pp. 105-109. Reprinted by permission of the publisher, Prentice-Hall, Inc., Englewood Cliffs, New Jersey.

The analysis of the educational-vocational environment. There is no question that being a college student was adding to Carol's difficulties in identifying a clear set of values for herself. Her readings, academic lectures, and friends all made her challenge values which she formerly either had held without thinking about seriously, or which she had formerly agreed with actively. Now, however, many of her early assumptions were challenged, leaving her for the moment, at least, without any orienting structure on which to base her behavior. Thus it was, in a way, Carol's educational-vocational environment which was exacerbating her difficulties while, paradoxically perhaps, at the same time offering the means by which she could solve her difficulties.

The analysis of the family environment. Carol's family understood neither the questions that Carol was raising nor her reasons for raising them. Not surprisingly, Carol's father could not understand his daughter's rejection of his values. He had worked hard to develop a good business as a building contractor and made a good income which provided a comfortable style of life for his family. Thus, it angered him to find that his daughter did not appreciate the many benefits he had provided for her. Carol's mother, while somewhat more tolerant of Carol's inability to accept without question the material benefits her father had provided, was concerned about Carol's behavior. She was afraid that Carol would engage in excessive sexual behavior or experiment with drugs and, thus, either be injured by drug use or become pregnant. Carol's brother, while having gone through a similar episode himself only a few years before, was now so deeply engrossed in his law studies and new marriage that he could provide little help to Carol in finding her way. The family environment thus added stress to Carol's situation. Carol managed the stress reasonably well, mainly because she was distant physically and emotionally from home. She rarely visited home; when she did, she found those periods immediately prior to and subsequent to home visits were ones of somewhat more intense depression than usual. These visits precipitated an increased awareness of the discrepancy between her views and those of her family.

Interpersonal relations. Carol had a very busy social and sexual life. She dated every weekend and sometimes during the week. These dates were often informal, where several couples would heatedly discuss social issues of the time. Occasionally, there was a party on the weekend, or Carol and her date would attend some musical or theatrical event that the university was sponsoring. Usually the evenings ended with Carol slightly drunk and slightly aroused sexually as a result of some mild to moderate heterosexual play. On several occasions, Carol had engaged in sexual relations with her date, afterwards feeling some guilt. Her guilt and anxiety were shortlived, however, and evidenced themselves only as she continued to express questions about what effects they might have on her later marital adjustment.

The group that she associated with would also occasionally experiment with marijuana, but Carol had thus far abstained from that experimentation, fearing the consequences of being caught by college or civil authorities.

As a consequence, it can be seen that Carol's social and sexual environment heaped fuel on the fires of her value conflict. In her social life, she was being drawn increasingly into a pattern of behavior that was in conflict with the pattern of behavior she had been taught to value at home.

The analysis of thinking process responses. In many ways, the nub of Carol's problem rested in her thoughts about her social and sexual behaviors. She found herself thinking about her value conflicts to a great extent. The only times she was not preoccupied with value questions were those times when she was in class, absorbed in the content of her course work. However, outside of class, even while she was studying, thoughts about the value conflict would intrude. Since Carol was very capable academically, her grades did not suffer, and she was able to remain on the dean's list in her academic performance. Carol, however, wanted counseling specifically about those matters which preoccupied her. She wanted to talk about these things.

Biological and physical attributes. Carol appeared to be in good health and had more than adequate recreational outlets (as indicated in the section on social and sexual environment).

Counseling Goals and Strategies

On the basis of the behavioral analysis, the counselor concluded it would not be relevant to attempt to have Carol change her style of life since she was really interested in coming to grips first with the question of what style of life she wanted to lead. Once that question was partially resolved, at least, then she could begin to face the question of what, if any, changes in the way she behaved would be desirable. What Carol really seemed to need was an opportunity for extensive and intensive discussions with the counselor during which time she could explore her questions, guilts, concerns over her sexual activities, her lack of vocational direction, and her failure to identify a reasonably acceptable life goal for herself. In essence, the counselor was using a supportive strategy to foster the client's development through a difficult developmental period. This case thus represents a way the facilitative-affective approach to a problem might be used in counseling.

Carol was seen by her counselor on a weekly basis for the remaining part of her sophomore year and through the entire junior year. These sessions were not highly structured and allowed Carol to talk freely about the wide range of concerns mentioned earlier. During this time Carol did not completely come to grips with all of the questions that she had at the outset, but she was able to come to the important recognition that the concerns she had could not be quickly answered and would be developmentally resolved. She also began to accept the fact that continuation in her current style of behavior would probably lead to an unwelcome confrontation with her parents and, possibly, with society. As a result, she began to move away from excessive social rebellion and began to moderate her sexual activities. She continued to refuse to become engaged in the use of drugs, and she did not entirely give up all of her sexual activities, but became more concerned with the emotional relationships with the young men she dated than with the sexual aspects of the relationships. She became more selective about her sexual partners. At the time the counselor concluded working with Carol, she was dating one student regularly; this relationship appeared to be heading toward marriage. As a consequence, many of her sexual concerns were receding, since she was able to resolve some of her guilt over her sexual intimacies with this young man in the context of the anticipated marriage.

Carol's mild depression remained, but seemed to be somewhat moderated because of the outlet the counselor provided for her emotional concerns.

Summary. This case shows how the facilitative-affective counseling approach may be used in helping a student through a difficult developmental problem exacerbated by the culture. While the outcome was not clear, Carol's distress was somewhat alleviated over the period of time the counselor worked with her, and her behavior became less likely to lead to long-term disruption. The counselor wisely refrained from trying to help Carol restructure her life abruptly, because Carol did not perceive the problem in the same terms as did the counselor. Carol needed a period of time to enable herself to come to terms with her social values and did not seem likely to respond well to a structuring of social values imposed on her by the counselor. In fact, it seemed that she had gotten into her difficulty largely because she was rejecting a set of values that had been imposed on her by her parents. As a result, the counselor had little choice but to follow a facilitative-affective strategy in working with Carol. As a consequence, he provided a useful service by helping Carol move a little further down the road toward resolving the large questions that faced her as well as helping her to avoid getting excessively involved in anti-social behaviors which might have unnecessarily complicated her life later.

Chapter V

VALIDATION OF THE DIAGNOSTIC TAXONOMY OF ADULT CAREER PROBLEMS: A PILOT STUDY

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In previous chapters, a taxonomy of adult career problems was presented. This chapter reports the results of a pilot validation study of a portion of the taxonomy. As time constraints prevented a full test of the taxonomy, this pilot study was conducted to evaluate the validity of the taxonomy during the establishment stage of adult career development. The scope of the study encompassed two activities, one conceptual and the other empirical. The conceptual activity was to formulate a preliminary design to validate the taxonomy. There were three tasks involved in this activity: (1) establish criteria for the design, (2) review literature to identify alternative designs, and (3) formulate the design which meets these criteria. The empirical activity was to pilot test the design on one problem domain of the taxonomy, i.e., the problem behaviors of a given career development stage. There was a fivefold task analysis for this activity: (1) establish criteria for selecting a problem domain, (2) select a problem domain, (3) arrange for pilot test, (4) conduct pilot test, and (5) analyze pilot test results. The purpose of this chapter is to report how these activities and tasks were accomplished. It is organized into four sections: (1) consideration of alternative designs, (2) methodology, (3) findings, and (4) recommendations.

Consideration of Alternative Designs

A reasonable starting point for validation was the examination of alternative research designs for validation. The first task in this process was to establish criteria for an appropriate and adequate validation design. At least three criteria are applicable. One criterion is that the problem behavior to be measured be explicit and capable of being clearly defined. A major shortcoming of previous diagnostic systems has been the ambiguity with which certain constructs have been defined, principally those that pertain to *cause* rather than *content* (e.g., "choice anxiety" [Bordin, 1946; Crites, 1969]). A second criterion is the availability of instruments to measure the problem behavior. Other things being equal, that design which can be best translated into objective measurement procedures is to be preferred. The third criterion is the representativeness of the problem behavior for the taxonomy. In this preliminary design it was essential to study as representative a problem behavior as possible since the entire taxonomy was not being validated but only one part of it.

The second task in the validation process was to review the relevant literature and to identify alternative designs to evaluate the taxonomy. Analysis of these designs indicated that they range on a continuum from *indirect* to *derived* measures of problem behaviors. The most frequently used design has been the judgmental, in which independent human observers classify problems into a diagnostic taxonomy, the measure being a percentage of agreement among the judges (Williamson, 1939; Bordin, 1946). This approach has been highly unreliable, however, with percentages of interjudge agreement varying from approximately 25 percent (three judges) to 35 percent (two judges) (Pepinsky, 1948; Sloan and Pierce-Jones, 1958). To correct for the unreliability of judgments, Crites (1969) formulated a system which is wholly objective. Categories in it are derived from the possible combinations of aptitude, interest, and career choice measures. For these variables, the taxonomy is exhaustive, and the categories are independent and mutually exclusive; but because they are derived from other measures, they are necessarily more complex and cumbersome than direct indexes of problem behaviors. Similarly, a design proposed and investigated by Holland, Gottfredson, and Nafziger (1975) conceptually defines problem behaviors in career decision making but also uses derived diagnostic "signs" which are abstruse and intricate. Possibly for this reason, their validity with external criteria of problem behaviors proved less than optimally desirable.

The last task in the consideration of alternative designs was to formulate a design which meets the criteria enumerated above. Clearly, the most important consideration is the explicitness with which the problem behavior can be measured. Review of the literature on problem behavior taxonomies indicated that the *direct* measurement mode is preferred over the indirect or derived. In other words, a standardized inventory of problem behaviors, with objectively scored items, is potentially more reliable and valid than interjudge agreement or diagnostic "signs." The availability of instruments for the direct assessment of adult career development problems is limited (Crites, 1976), but a large pool of items for constructing an appropriate inventory has been accumulated through previous research (Crites and Hanson, in process). From this pool, items can be selected for scale construction to measure salient problem behaviors in the taxonomy. Of these, the most representative would be those of the establishment stage. It is during this period of the adult work life that the individual attempts to find a position and progress in it. For the neophyte worker, to become established in the world of work is the *sine qua non* for subsequent satisfactory and satisfying career development. Relevant behaviors to inventory from the establishment stage include those delineated in Chapter II (pp. 5-48). They also reflect the four major problem themes across stages: (1) career decision making, (2) implementing career plans, (3) organizational/institutional performance, and (4) organizational/institutional adaptation. The direct measurement of these behaviors with an objectively scored inventory meets all of the criteria (i.e., explicitness, availability, and representativeness) of a model design for pilot testing one problem domain of the taxonomy.

Methodology

To conduct the pilot test, five subsequential tasks were delineated: (1) establish criteria for selecting a problem domain, (2) select a problem domain, (3) arrange for pilot test, (4) conduct pilot test, and (5) analyze pilot test results. Tasks 1-4 are discussed in this section with reference to (a) measurement of variables, (b) subjects, (c) data collection, and (d) design and analysis. Task 5 is reported in the next section on "Findings."

Measurement of Variables

In selecting a problem domain for measurement, several criteria were applied. First, the problem behaviors selected had to be *critical* to adult career adjustment and development. In other words, if the worker did *not* accomplish certain career developmental tasks of the establishment stage, then subsequent career adjustment, as indicated by success and satisfaction, would be adversely affected (Crites, 1976). It has been found, for example, that the single most critical behavior in job failure is the inability to get along with others (Crites, 1969). Second, the problem behaviors had to be *developmental.* They were conceptualized as both general dimensions of career development across the several stages of the adult work life *and* specific responses to the career developmental tasks of the establishment stage. For example, "ability to get along with others" is a general dimension of career development which spans the years from occupational entry to retirement, but it is also a specific task of the establishment stage in entering and progressing in the world of work. Third, the problem behaviors had to be directly *measurable.* It was essential that items were available to define operationally those behaviors which are problematical in mastering the career developmental tasks of the establishment stage.

These criteria led to the construction of an instrument called the *Career Adjustment and Development Inventory* (CAR-ADI) (Crites, 1979b), with six scales to measure the problem behaviors of the establishment stage: (1) career choice and plans (career decision making); (2) advancement (implementing career plans); (3) position performance (organizational/institutional performance); (4) work habits and attitudes (organizational/institutional performance); (5) organizational adaptability (organizational/institutional adaptation); and (6) coworker relationships (organizational/institutional adaptation). The content and construction of the CAR-ADI have evolved over a period of several years. Conceptually, it was constructed from the "Comprehensive Model of Career Adjustment in Early Adulthood" (Crites, 1976), in which career developmental adjustment problems were generically defined as "failure to accomplish the career developmental tasks of a life stage." That is, to the extent that a worker does not master a task necessary for career development at a given point in time, e.g., getting a job upon completion of education or training, he or she is less career adjusted and mature. Given this general definition of problem behaviors in career development, items were selected from a large pool to constitute the CAR-ADI scales, each of which represents a task to be accomplished in the establishment stage. Thus, for example, the coworker relationships scale operationally defines the task "to develop satisfying and satisfactory coworker relationships," and it is comprised of items which, if endorsed by the worker in the keyed direction, indicate the degree of career maturity in this domain. (See Appendix A for a specimen set of the CAR-ADI.)

The *administration* and *scoring* of the CAR-ADI is simple and objective. The first ninety items are statements of attitudes and behaviors which are answered either true or false. The directions are as follows: "If you AGREE or mostly agree with the following statements about your work, mark the space for 'True' on your answer sheet. If you DISAGREE or mostly disagree with the statements, mark 'False' on your answer sheet." Initially, these items are being scored rationally using an *a priori* key, but eventually they will be checked impirically against criterion group differentiation using the "rational-empirical" method of test construction (Crites, 1965, 1978). An additional set of twenty open-ended questions are also included in the CAR-ADI to generate content for multiple-choice item foils. A final write-in question was included for qualitative analysis which asks, "What is the single most important problem you have on your job?" Once these data from this preliminary study of one problem domain with the CAR-ADI have been analyzed, further research on its psychometric characteristics (norms, reliability, and validity) will be conducted.

To initiate this evaluation, three additional blanks or questionnaires were administered with the CAR-ADI. One was simply a series of questions to gather demographic data on the subjects in the study (e.g., age, sex, job title, etc.). Another was designed to elicit the respondents' reactions to taking the CAR-ADI: Did they enjoy it? Did the statements "make sense"? Were the statements relevant? Finally, to gather preliminary criterion data on the CAR-ADI, the Hoppock Job Satisfaction Blank No. 5 (Hoppock, 1935) was administered to all subjects. It assesses job satisfaction, one of the two complementary components of career adjustment (the other being job success [Crites, 1976]) with which the CAR-ADI, as a measure of career developmental task mastery, should be related.

Subjects

All subjects were full-time gainfully employed adults in the establishment stage. They were sampled from three distinctive organizational contexts to provide representative data from a wide spectrum of the world of work. The industrial contexts they represent were commercial, manufacturing, and research and development. Within each organization an attempt was made to collect data from all levels of authority and responsibility, ranging from upper management to maintenance and support personnel. In this preliminary study, with restricted *N*s, stratified sampling techniques were not used. Rather, demographic and other subject variables (e.g., general intelligence) were allowed to vary randomly. The only possible bias in this source of variance was the voluntary participation of the subjects. Data were gathered only on subjects who volunteered and who signed the human subjects research consent form.

Data Collection

A packet of materials was assembled for each subject and arranged in the following order: (1) consent form, (2) Personal Data Blank (PDB), (3) CAR-ADI, (4) Hoppock JSB, and (5) Reactions Questionnaire (RQ). Sufficient packets for 100 subjects at each data collection site were sent to a career consultant in each organization for distribution. Volunteers for the study were solicited and, if they agreed to participate, were asked to read and sign the consent form. They were then administered the remainder of the blanks, inventories, and questionnaires anonymously. All subjects were assured that their participation was confidential and that they would receive feedback on the results of the study. When materials were completed, they were scored and processed for computer analysis.

Design and Analysis

The purpose of this preliminary study with the CAR-ADI was to validate the diagnostic taxonomy in one problem domain—accomplishment of career developmental tasks in the establishment stage. If the taxonomy is valid during this period, then certain relationships should obtain among the items and scales of the CAR-ADI. Specifically, the hypotheses were these:

1. *Items keyed to a particular scale are more highly related to it than to the total scale.* If the scale measures distinctive career developmental tasks and problem behaviors in mastering them, then the items in each scale should be relatively homogeneous. That is, they should constitute a cluster of similar attitudes and behaviors appropriate to coping with a given career developmental task.

2. *Scales should be moderately positively interrelated.* Although each scale should be unique enough to define the attitudes and behaviors relevant to the various career developmental tasks, the several scales collectively should be related to each other if they all measure adjustment to the tasks of the same life stage.

3. *Scales should be low to moderately positively correlated with their composite total score.* Allowing for the spuriousness of part-whole correlations, the scales should be positively related to their total if, again, they are measuring a common problem domain in the diagnostic taxonomy. Implicit in these hypotheses, then, is a "model" of career developmental adjustment which is *hierarchical* in its formal characteristics (Crites, 1976). At its lowest level are the CAR-ADI items as measures of specific attitudes and behaviors. At the

100

next (intermediate) level are clusters of items (scales) which define group factors in the construct. And, finally, at the highest level of the hierarchical model of career developmental adjustment is a general dimension which represents the overall maturity of adult workers in accomplishing the tasks of the establishment stage.

To test these hypotheses several statistical analyses were conducted. For the item-scale relationships, biserial *r*s were calculated between (1) true-false responses to the items which were assumed to have an underlying continuum from "agree" and "mostly agree" to "mostly disagree" and "disagree," and (2) total scale score. For the scale-scale and scale-total relationships, all of which involve continuous variables, zero-order *r*s were obtained. Items and scales were also correlated with scores from the Hoppock Job Satisfaction Blank as a criterion variable; biserial *r*s were used for items and product-moment *r*s for scales.

Findings

This section of the chapter is organized into two parts, the first on characteristics of the sample and its reactions to the CAR-ADI and the second on the statistical analyses which were conducted on the CAR-ADI.

Sample Characteristics

Because participation in this preliminary validation of the CAR-ADI was voluntary, the expected return rate for the research packets distributed to the data collection sites was 25 to 30 percent (Fiedler, 1978). Actually, of the 300 sets of material sent out, over 50 percent were completed. Of these, 110 were available at the time the statistical analyses had to be performed. *N*s varied somewhat from one analysis to another, depending upon how variables were constituted (e.g., dichotomizing continuous variables) and which statistical technique was used.

From the Personal Data Blank (PDB), it was apparent that the sample was reasonably heterogeneous. The mean age in years was 34.7, with a range from 20 to 55, indicating that most, if not all, *S*s were in the establishment stage. Similarly, the proportions of males and females were approximately equal; the respective percentages were 56 percent and 44 percent. The average number of years those in the sample had worked, indicative partially of their stage of career development, was 14.8, with a range from one to thirty-three years. Mean number of jobs held during their careers was three. Their job titles ranged across the occupational hierarchy, giving a fairly representative sampling from different levels.

On the Reactions Questionnaire (RQ), designed to elicit evaluations of the CAR-ADI by the *S*s, those in the sample expressed highly favorable opinions of the instrument, 78 percent of them indicating that they enjoyed taking it. Similarly, 79 percent agreed that the statements "made sense." One comment was, for example, that "the statements 'made sense' to a far greater degree than most other questionnaires of a similar nature." Finally, 75 percent reported that they considered the items in the CAR-ADI to be "relevant" to them. Overall, then, approximately three-fourths of those in the sample were positive in their evaluations of the CAR-ADI.

Scale Statistics

The first order of analysis to determine how adequately the CAR-ADI measures mastery of career developmental tasks in the establishment stage was on the *item* variable level. First, item difficulties were calculated for all the items in the CAR-ADI to establish what percentage of the sample answered each item in the keyed response position. Tables 4 through 9 report these data for the six CAR-ADI scales. The number of items endorsed in a career-mature direction (keyed response position) varied across scales, indicating greater mastery of some career developmental tasks than others. In general, the item difficulties were as expected, with some variances large and others small. Clearly, there are some items with little or no variability which must be eliminated from the CAR-ADI in future research on scale refinement. Dropping them will increase internal consistencies and correlations with other variables.

Second, item biserial correlations were computed between the scale and total scores to assess the extent to which items had been appropriately assigned to the scales. In general, the correlations were in the moderate (.50) to high (.80-1.00) range, with those for the scales being greater than those for total. Two conclusions can be drawn from this preliminary analysis: (1) items were largely keyed to the correct scale, and (2) they "load" on both a group *and* a general factor of career developmental task mastery during the establishment stage (Hypothesis 1). Following further item and scale refinement, it is expected that a hierarchical factor analysis of the interitem matrix will confirm this structure of the problem domain in coping with the tasks measured by the CAR-ADI.

Finally, items were correlated with the Hoppock Job Satisfaction Blank (JSB) as a criterion measure of one facet of career developmental adjustment. Over one-half of the correlations were significant at the .01 level or beyond, many of which were in the .50s and .60s. This finding is unusual for the item-variable level of analysis, where *r*s are typically attenuated by the restricted variances of two-point data (true-false response options). The items were selected from a previously researched pool, however, and they were constructed using rational-empirical test methodology. In further research on the CAR-ADI, it is expected that only items significantly related to satisfaction and success will be included.

The second level of statistical analysis in the measurement of career developmental task mastery during the establishment stage was with the several *scales* of the CAR-ADI. The basic data are reported in Table 10, where it can be seen that the interrelationships of the scales largely conform to theoretical expectation (Hypotheses 2 and 3). All but three of the coefficients are highly significant, most beyond the .001 level, and they generally fall in the moderate positive range (.30-.40). In other words, most of the scales contribute *both* unique and common variance to the measurement of this problem domain. They each assess a specific task "dimension" of the establishment stage, but they also correlate highly enough to constitute a *construct* of coping behaviors, as also evidenced by their correlations with the total scale, which are in the moderate to high range (part-whole *r*s). Again, a hierarchical model of career developmental adjustment is supported by the findings on the interrelationships of the scales in the CAR-ADI and their "loadings" on the total.

A finding that emerged from the data analysis for scales, which was not anticipated but which is consistent with the hierarchical model of the establishment stage and which defines an underlying continuum for it, comes from the means of the CAR-ADI scales. Much as they could be ordered in a temporal sequence by item difficulties, they can also be ordered by the scale means. The largest mean is for organizational adaptability (13.87), followed closely by position performance (13.30), both of which would be expected to be mastered early in the establishment stage. Intermediate in the sequence are work habits and attitudes (12.59) and coworker relationships (12.29), ongoing tasks which occupy a central focus during the middle of the establishment stage. Finally, there are

Table 4

Item Statistics for the Advancement Scale of the CAREER Adjustment and Development Inventory

Item Number	Difficulty Index*	Scale *r* bis	Total *r* bis	Hoppock JSB *r*
6	.46	.35	.54	.35
9	.84	.50	.39	.01
16	.59	.48	.27	.05
28	.91	1.00	.95	.16
33	.74	.57	.58	.38
36	.76	.70	.53	.08
39	.74	.69	.37	.12
42	.80	.86	.82	.44
49	.97	1.00	1.00	.32
53	.92	.48	.24	.11
62	.80	.91	.61	.03
68	.57	.30	.52	.01
74	.86	1.00	.75	.17
80	.91	.61	.57	.44
85	.66	.70	.53	.27
		[KR 20 = .70]		

Note. *r* = .20 significant at .02 level.

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*Proportion of respondents answering the question in the keyed response direction

Table 5

Item Statistics for the Work Habits and Attitudes Scale of the CAREER Adjustment and Development Inventory

Item Number	Difficulty Index*	Scale *r* bis	Total *r* bis	Hoppock JSB *r*
3	.97	.88	.26	.64
14	.96	.66	.25	.39
18	.80	1.00	.58	.30
21	.97	1.00	1.00	.40
29	.70	.56	.46	.41
35	.76	.77	.52	.29
37	.78	1.00	.66	.28
45	1.00	.00	.00	.00
50	.95	1.00	.71	.52
60	.97	.02	.36	.16
65	.96	1.00	1.00	.39
69	.95	.52	.31	.06
75	.25	.13	.09	.04
82	.61	.49	.22	.03
89	.96	.83	.25	.64
		[KR 20 = .59]		

Note. *r* = .20 significant at .01 level.

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*Proportion of respondents answering the question in the keyed response direction

Table 6

Item Statistics for the Position Performance Scale of the CAREER Adjustment and Development Inventory

Item Number	Difficulty Index*	Scale *r* bis	Total *r* bis	Hoppock JSB *r*
2	1.00	.00	.00	.00
7	.95	1.00	.41	.02
10	.95	.74	.26	.11
17	.96	.53	.25	.02
25	.93	.52	.69	.19
47	.97	.90	.41	.68
52	.95	.74	.34	.21
54	.96	.96	.27	.02
56	.74	.89	.31	.04
58	.96	.21	.11	.14
63	.99	.11	.52	1.00
71	.92	.24	.81	.56
77	.71	.94	.50	.05
84	.97	.00	.00	.20
88	.34	.59	.01	.03
		[KR 20 = .49]		

Note. *r* = .20 significant at .01 level.

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*Proportion of respondents answering the question in the keyed response direction

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Table 7

Item Statistics for the Coworker Relationships Scale of the CAREER Adjustment and Development Inventory

Item Number	Difficulty Index*	Scale *r* bis	Total *r* bis	Hoppock JSB *r*
19	.96	.77	.45	.64
23	.87	.66	.37	.00
27	.32	.67	.14	.13
34	.47	.78	.32	.25
38	.68	.54	.48	.33
40	.62	.71	.57	.18
44	.87	.17	.14	.02
46	.86	.91	.54	.39
48	.78	.40	.43	.42
59	1.00	.00	.00	.00
61	.95	.59	.51	.82
67	1.00	.00	.00	.00
73	.95	.81	.31	.47
79	.99	.64	1.00	.56
86	.99	.36	.14	.00
		[KR 20 = .52]		

Note. *r* = .20 significant at .01 level.

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*Proportion of respondents answering the question in the keyed response

Table 8

Item Statistics for the Organizational Adaptability Scale of the CAREER Adjustment and Development Inventory

Item Number	Difficulty Index*	Scale *r* bis	Total *r* bis	Hoppock JSB *r*
4	1.00	.00	.00	.00
12	.91	.68	.35	.29
15	.99	.98	.91	1.00
24	.95	.84	.21	.66
26	.82	.60	.22	.13
30	.97	.64	.03	.08
32	.86	.85	.84	.42
41	.97	.77	.36	.08
43	.89	.91	.51	.42
55	.99	1.00	.20	.56
64	.88	.77	.91	.60
70	.95	.75	.09	.26
76	.83	.63	.38	.12
81	.91	.80	.75	.67
90	.96	1.00	.69	.23
		[KR 20 = .55]		

Note. *r* = .20 significant at .01 level.

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*Proportion of respondents answering the question in the keyed response direction

Table 9

Item Statistics for the Career Choice and Plans Scale of the CAREER Adjustment and Development Inventory

Item Number	Difficulty Index*	Scale *r* bis	Total *r* bis	Hoppock JSB *r*
1	.92	.77	.43	.22
5	.24	.76	.61	.34
8	.58	.59	.33	.14
11	.79	.53	.49	.59
13	.91	.52	.74	.31
20	.55	.36	.09	.14
22	.92	.62	.61	.11
31	.89	.05	.11	.24
51	.45	.23	.09	.25
57	.95	.57	.41	.05
66	.80	.67	.72	.54
72	.78	.77	.77	.79
78	.51	.73	.67	.38
83	.82	.60	.58	.08
87	.47	.77	.65	.30
		[KR 20 = .60]		

Note. *r* = .20 significant at .01 level.

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*Proportion of respondents answering the question in the keyed response direction

Table 10

Means, Standard Deviations, Internal Consistencies, and Intercorrelations of CAR-ADI Scales and Total

Scale		$\bar{X}$	S.D.	KR20	Adv	Wha	Pos	Cor	Org	Car	Total
Advancement	(Adv)	11.53	2.64	.70	(1.00)	.39	.26	.18	.34	.65	78
Work Habits and Attitudes	(Wha)	12.59	1.80	.59	.39	(1.00)	.11	.31	.37	.28	.61
Position Performance	(Pos)	13.30	1.42	.49	.26	.11	(1.00)	.15	.22	.33	.47
Coworker Relationships	(Cor)	12.29	1.78	.52	.18	.31	.15	(1.00)	.37	.41	.58
Organizational Adaptability	(Org)	13.87	1.45	.55	.34	.37	.22	.37	(1.00)	.37	.63
Career Choice and Planning	(Car)	10.58	2.37	.60	.65	.28	.33	.41	.37	(1.00)	.82
TOTAL		74.16	7.73	.84	.78	.61	.47	.58	.63	.82	(1.00)

Note. $r = .20$ sig[illegible]nt at .01 level.

advancement (11.53) and career choice and plans (10.58), both of which have a future orientation and which occur relatively later in the establishment stage. In other words, there appears to be a "task/time" sequence which underlies the problems encountered by workers during the establishment stage, extending from organizational adaptability and position performance, through work habits and attitudes and coworker relationships, to advancement and career choice and plans.

The last analysis with the CAR-ADI scales was to determine their relationships to the Hoppock Job Satisfaction Blank (JSB). Because of their greater length as compared with the items, the scales generally correlated more highly with the JSB. The *r*s ranged from .25 to .40, with most in the mid-.30s. Not only are these all significant beyond the .01 level, but they are theoretically consistent with a developmental model of career adjustment in the establishment stage. It is a general proposition in career development theory that mastery of career developmental tasks is related to the outcomes of the career adjustment process—satisfaction and success. In future research, it is anticipated that the CAR-ADI scales will be correlated with success as well as satisfaction.

At the most general level of statistical analysis are the results on the total ninety-item CAR-ADI scale. Viewed as the general factor defining career developmental task mastery during the establishment stage, the total scale encompasses the other scales and represents the common variance among them. In other words, it is a composite, as reflected in its relatively high internal consistency, Kuder-Richardson Formula 20 = .84. This coefficient indicates that the CAR-ADI constitutes a homogeneous scale of items presumably measuring the continuum of career development during the establishment stage. That the total scale has validity as a measure of career adjustment in this period of the work life obtains from its correlation with the Hoppock Job Satisfaction Blank, which was .50. Interpreted theoretically, this means that mastery of the career developmental tasks of the establishment stage is related to job satisfaction as a criterion of career adjustment: *the more career-mature workers are in task mastery, the more satisfied they are with their jobs.*

Recommendations

Before recommendations and implications of this preliminary validation of the diagnostic taxonomy can be drawn from the findings, certain limitations of the study should be noted. First, only *one* problem domain was investigated. To understand how comprehensive the taxonomy is for the classifications and measurement of adult career adjustment problems it would be necessary to assess task mastery in other career life stages. For an early stage, e.g., preparation, the expectation might be that the means on all six CAR-ADI scales would be lower, indicating less extensive mastery of the tasks which a greater percentage of the workers in the establishment stage have accomplished. Second, conclusions from this small scale study are necessarily tentative until they can be replicated on larger samples from a variety of organizational contexts. Given more extensive data, not only will it be possible to establish a normative baseline for score interpretation, but study of both worker and organizational parameters will be possible. These would include the psychological and sociological factors such as organizational "climate" delineated by Crites (1976). Finally, the CAR-ADI needs further psychometric development. Some items must be refined and others (e.g., multiple-choice) must be added from the open-ended question responses. Even though this was a preliminary validation of the CAR-ADI as a direct measure of the diagnostic taxonomy, however, the results from it were not only promising psychometrically, but they were theoretically cogent and heuristic.

The findings generally "fit" the hierarchical model of career developmental adjustment for the establishment stage as outlined in the hypotheses. The items were largely homogeneous within the scales, and the scales correlated moderately positively with each other and the total. Also, the latter clearly was internally consistent as a general factor of career developmental task mastery which was, in turn, highly related ($r = .50$) to one of the principal outcomes of the career adjustment process, job satisfaction. Theoretically, it is predicted that all levels of variables in the CAR-ADI—items, scales, and total score—will also be related to the other major component of career adjustment, job success. As additional data are collected, then, the shape of the hierarchical model should be sharpened and its relationships to satisfaction and success further explicated.

The findings also suggested how the dimensions of the model develop over time. Consider the conceptual framework shown in Figure 3 which has been extrapolated from the results on CAR-ADI scale means and intercorrelations. These data converge on a "task/time" sequence which defines three discernible phases in career developmental adjustment during the establishment stage. Early in the stage the worker focuses upon the tasks of organizational adaptability and position performance, which are more completely mastered than any others. The correlation between these two tasks, although relatively low, is nonetheless significant and considerably higher than the r between Pos and Wha, thus providing a demarcation between phases 1 and 2. In the latter, the principal tasks are work habits and attitudes and coworker relationships, which are correlated .31. These tasks tend to be "right now" oriented for the worker who, during the intermediate phase of the establishment stage, is preoccupied with present work activities (Wha) and interpersonal associations (Cor). Again, the demarcation between this phase and the succeeding one is explicit, the r between Cor and Adv being only .18. The last phase in the establishment stage appears to be future-oriented, with the tasks of advancement and career choice and plans predominant. The high correlation between them (.65) suggests that "getting ahead" is closely related to decisions about "future career."

Obviously, these conceptual conjectures need further study, which is one of the major recommendations of this preliminary validation of the diagnostic taxonomy. This pilot study of the taxonomy during the establishment stage represents only a beginning in the validation process, but it is a promising one. The results confirm that the comprehensive conceptual framework for diagnosing adult career adjustment and development problems presented in Chapter III can be translated into operational terms with the CAR-ADI. In other words, the problem categories in the diagnostic taxonomy are "validated" by the empirical findings on the *directly* measured behaviors of full-time gainfully employed adults. Moreover, the results indicate that the direct measurement approach to assessing problems in mastering career developmental tasks, as compared with either interjudge agreement or "diagnostic signs," is psychometrically reliable and valid. The diagnostic taxonomy and the CAR-ADI together exemplify the efficacy and utility of the combined rational and empirical approaches to conceptualizing and assessing the problems workers encounter during the critical establishment stage.

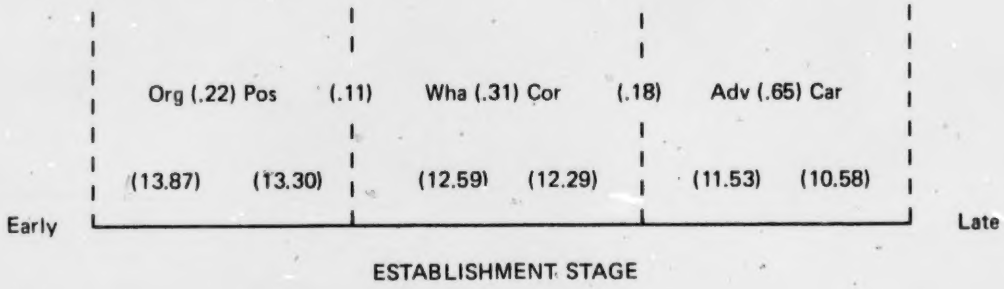

FIGURE 3. Temporal sequence of career developmental tasks during the establishment stage by means and intercorrelations of CAR-ADI scales.

Because the diagnostic taxonomy spans time, and what appears to be an explicit "task" sequence in the process of establishment, it is essential that in further validation *longitudinal* data be collected. Only by tracing the career development of individuals across time, through repeated measurements with an instrument such as the CAR-ADI, will it be possible to test the diagnostic taxonomy adequately. With such longitudinal data, mature and immature patterns of career adjustment can be diagnosed and differential interventions formulated. It is conceivable, for example, that from such research a CAR-ADI profile for a worker or work group can be constructed which immediately diagnoses those problem domains in which career developmental tasks are *not* being mastered. Thus, low scores may be obtained on career choice and plans and advancement, suggesting possible "mid-career crisis," and career counseling can be formulated to intervene on the issues surrounding this increasingly pervasive phenomenon for adult workers.

More specifically, the following recommendations are made to pursue the implications of this preliminary validation of the diagnostic taxonomy for adult career development problems:

1. Further refine the CAR-ADI psychometrically to enhance its reliability and validity.

2. Gather large-scale data with the CAR-ADI on various occupations and organizations to construct reference group norms.

3. Collect longitudinal data on the career adjustment problems of workers, as measured by the CAR-ADI, throughout the establishment stage, and determine the correlates of these problems.

Finally, a general recommendation based upon the promise of the CAR-ADI in this preliminary validation is to extend the measurement design for the diagnostic taxonomy to other problem domains. The same assessment approach would appear to be efficacious and useful for classifying problems in earlier and later stages of career development. It is not inconceivable that objective, direct measures of problems in the mastery of career developmental tasks can be constructed for all of the stages in the adult work life, from exploration through establishment and maintenance to retirement.

Chapter VI

RECOMMENDATIONS

This project was an initial effort to capture and classify adult career development problems across the life span. During the course of this research, several rich topics for further research were identified. These topics fall generally into the realms of theory building, applied research, and the advancement of diagnosis. The recommendations presented below are not intended to be exhaustive. Rather, they are intended as stimuli for further inquiry and debate. These recommendations reflect how little is actually known about helping people nourish and care for the working aspects of their lives.

- Improvement of Diagnostic Assessment Through Training and Support Materials

As research efforts are made to improve diagnostic analyses of adult career development problems, the results must filter into practice. It is in the counseling situation that the value of diagnostic techniques is confirmed or denied. Two avenues of transferring new knowledge are preservice and inservice training. Preservice training instructs those who are preparing to be counselors, while inservice training updates the knowledge of practicing counselors. Part of updating diagnostic skills, however, requires the conversion of research into a practical, instructional form. Typically, this means developing a workshop curriculum or transportable materials for classroom use. Support materials could include handbooks of case studies illustrating diverse problems, role playing scenarios, audio-visual presentations, and actual assessment devices for use in the counseling situation.

- Reduction of Adult Career Development Problems Through Preventative Programs

Traditionally, adulthood has been viewed as a period of stability which incorporates the notion that nothing of tremendous significance occurs during the middle years; adults emerge fully formed at the age of twenty-five and remain virtually the same until the middle sixties. In recent years, an emerging body of research and theory has questioned the notion of stasis in the adult years. Current theoretical formulations of adulthood have depicted its dynamic nature through frequent life transitions as a function of the interplay of the individual's culture, health, interpersonal relations, education, and work. These transitions affect an individual's career development.

Adulthood's dynamics have been reported on a limited basis in the mass media (Levinson, et al., 1978; Sheehy, 1976), but little has been done systematically to instruct the general public about adult career development. If adults were more knowledgeable about career development over the life span, then perhaps the stress or severity of career problems could be reduced. Investigations should be made to determine the most effective ways of raising the general public's awareness of adult career development processes and problems. Possible steps for doing this include establishing curricula in secondary and postsecondary schools as well as in area mental health and career planning centers.

- Identification of Transferable Skills for Career Development

Americans are highly mobile, and their work careers are characterized by change. It has been estimated, for example, that on the average Americans change jobs five times during their working life. Some changes in work careers are voluntary (e.g., job upgrading or advancement), and some are involuntary (e.g., job obsolescence or unemployment). Some changes can be anticipated while others cannot. Thus, career change and development usually isn't neat, tidy, or linear. Often it is unplanned, haphazard, and uncertain.

The dynamic nature of the work force makes it necessary for people to transfer skills from one job to another. These transferable skills are both innate and learned abilities, knowledge, and attitudes. Knowing how to manipulate transferable skills is beneficial both to the individual and to the economy. Studies should be conducted on the applicability of these skills to everyday career problems faced by adults. This would include procedures for identifying, evaluating, and training for transferable skills.

- Examination of Coping Techniques Used by Individuals in Work Adjustment

Individuals use a variety of techniques to cope with on-the-job adjustment and career transition problems. These individuals meet with varying degrees of success in using coping mechanisms such as seeking support from coworkers, attending courses to maintain skills, and taking medications to alleviate tension. Despite the pervasiveness of work and transition problems, there have been few systematic studies of coping techniques. Such studies might be a fruitful endeavor in identifying unique coping techniques, specifying the individual correlates of successful and unsuccessful work adjustment, and revealing maladaptive coping techniques. Once these techniques have been identified and evaluated, they can be incorporated into career counseling programs as both preventative and remedial resources available to counselors and clients.

- Survey of Career Development Problems of Nonprofessional and Special Groups

Research in career development and career development problems seems to have focused primarily on middle-class professional and managerial groups. There has been limited research of the career development problems of nonprofessional and special populations (e.g., ethnic and racial minorities, handicapped, women). In particular, there has been little investigation of the ways in which the career development of these groups compares to the career development of middle-class professional and managerial groups. A number of research questions need to be asked. Do nonprofessionals experience problems which differ significantly from professional groups? What are the similarities and differences among these groups in their career development and career development problems? Is there a need for different treatments for different groups experiencing similar career development problems? Finally, is mid-life career change a middle-class phenomenon nonexistent in other populations?

- Study of Occupational Differences in Stress and Adjustment

It is assumed that stress and adjustment problems are more pronounced in certain occupations than others (e.g., air traffic controller, physician, corporate executive). However, little research has been done to verify these assumptions. A number of questions need to be answered. For example, if differences exist among occupations in their levels of stress and adjustment, what are the reasons for these differences? Are stress and adjustment problems a function of the person or of the job? To what extent do these problems relate to organizational variables (e.g., size, organizational structure, type of operation)?

- Field Test of the Taxonomy

Thus far, the design of the diagnostic taxonomy has been guided by literature review and the contributions of researchers and practitioners in the career development field. Preliminary analyses have given some indication of the taxonomy's structural characteristics (e.g., validity). Now, more rigorous field testing needs to be done. Actual use of the taxonomy by guidance personnel, college counselors, industrial personnel workers, career specialists, and mental health practitioners in career settings could provide feedback in a number of areas. Some of the questions to be asked include the following: (1) What further expansion or refinement is needed in the diagnostic categories? (2) What difficulties are encountered in attempting to use the taxonomy? (3) How practical is it to use in applied settings? (4) What does it contribute to the formulation of treatment plans?

- Demonstration of Treatment Implications of Diagnostic Categories

Although the diagnostic taxonomy should provide a standardized way for "labeling" career problems, this should not be its sole purpose. Experimental studies are needed to demonstrate whether or not a diagnosis as taken from the taxonomy has implications for treatment. This could be accomplished in a two-stage process. First, it would be necessary to catalogue the extant techniques for treating career development problems. Then, using the taxonomy, it will be possible to form several homogeneous groups of individuals sharing a common career problem and measure the groups' differential response to differential treatment. For example, do persons classified as having problems in "organizational adaptation: initial entry" respond best to one-to-one adjustment counseling or to a group orientation procedure?

- Refinement of Terminology and Instrumentation in Career Development

A review of the literature in career development indicates that there is a need for increased precision in the terminology and instrumentation currently in use.

Terms and concepts exist in career development which have ambiguous or conflicting definitions (e.g., stage, vocation, career). This problem is compounded as burgeoning research produces a proliferation of new terms and concepts. Efforts need to be directed towards bringing precision to the terminology in career development.

Once this is accomplished, the development and refinement of instruments to measure concepts of career development can proceed. Theory building and counseling practice are limited by poor instrumentation of dubious validity and reliability. A lack of more precise measurement methods hinders the verification of hypotheses and the assessment of the effectiveness of our intervention strategies. A common set of terms and concepts, unambiguously defined, would also assist in ameliorating this problem.

- Theory Building in Career Development

There is a continuing need for the development of theories of career development. Both in the literature and in practice, the career development process is too complex to be adequately described by some of the relatively simplistic models that have been developed thus far. Our reconceptualization of the stage model of development is one attempt to convey the variety of career sequences that occur. The model developed by Krumboltz, Mitchell, and Jones (1976) has addressed the complex factors which impinge upon the career decision-making process. Further efforts are needed.

One possible avenue for research is the development and refinement of "micro-theories" which address small portions of the career development process (e.g., choice, job change, promotion). Once these theories are developed, they could slowly be merged into more global theories of career development. These global theories would also need to treat the issue of career development as it interacts with other spheres of life (e.g., personal growth, interpersonal relationships, economic conditions). "Career" is not an isolated concept which exists independent of other life events. It acts upon and is acted upon by other forces which need to be represented, or at least recognized, in an eventual theory of career development.

- Development of Techniques to Improve Diagnostic Assessment

Although the taxonomy identified gross categories and subcategories of career development problems, it does not provide the more comprehensive diagnostic assessment that is needed for a functional diagnostic evaluation of the client's problem. Consequently, it is recommended that more effort be devoted to the development of techniques which would enhance more specific diagnostic evaluation. For example, even though the counselor may have superficially diagnosed a problem as relating to organizational adaptation, this still leaves a great deal of latitude as to the specific facets of this problem, i.e., is it a problem of work style, values, organizational commitment, etc.? Similar questions could relate to other areas of career development.

Improved diagnostic techniques could embrace a range of information-gathering approaches such as measurement, observation, and interviewing. Some promising developments have been occurring in this regard, e.g., adult vocational maturity (Crites, 1978; Super, 1977), vocational indecision (Holland, Gottfredson, and Nafziger, 1975; Osipow, Carney, and Barak, 1976), and organizational commitment (Mowday, Steers, and Porter, 1979). In addition to these instrumentation approaches, observation and interviewing techniques have been developed such as role-playing, work evaluations, situational simulations, and structured client self-reports.

- Establishment of Sound Criteria for Evaluating Career Development Outcomes

To study the varied dimensions of career development effectively, there is a need for sound criteria to measure research outcomes. The experimental evaluation of career development intervention programs is especially hampered by fragile criteria. Constructs such as vocational success, job satisfaction, occupational choice, career transition, job adjustment, vocational adaptation, and career exploration are frequently mentioned as outcome criteria, but they become operationally elusive in their measurement. Although we have had reasonable success in refining some of these constructs, most of them pose problems. For example, in the study of mid-life career transitions, what criteria should be used to determine if a career change has occurred? Should it be a major change of occupation or a minor shift to a related occupation? How do we determine the success of the change (transition)? Similar criterion problems can be proposed for other career development phenomena, e.g., what criteria should be used to assess the establishment of a career? How do we know when someone has adapted vocationally? What criteria are appropriate to track career progression?

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Appendix A

CAREER ADJUSTMENT AND DEVELOPMENT INVENTORY